SERVICE MANUAL

PM-94

marantz®

model PM-94

Stereo Amplifier

MARANTZ DESIGN AND SERVICE

Using superior design and selected high grade components, MARANTZ company has created the ultimate in stereo sound.
Only **original MARANTZ parts** can insure that your MARANTZ product will continue to perform to the specifications for which it is famous.

Parts for your MARANTZ equipment are generally available to our National Marantz Subsidiary or Agent.

ORDERING PARTS:

Parts can be ordered either by mail or by telex. In both cases, correct part number has to be specified. If you order by mail, fulfil MARANTZ order forms.

The following information must be supplied to eliminate delays in processing your order:
1. Complete address
2. Complete part numbers and quanties required
3. Description of parts
4. Model number for which part is required
5. Way of shipment
6. Signature: any order form or telex must be signed otherwise such part order will be considered as null and void.

TECHNICAL ASSISTANCE

Should you require any other technical support, do not hesitate to contact the Technical Department of P.M.A.
MARANTZ INTERNATIONAL
Quality & Service Dept.
80, Rue des Deux Gares,
B-1070 Brussels
Belgium
Phone: 02/525.70.22 or 525.70.23
Telefax: 02/525.6160
Telex: 23550 OR
61511 (PHEMB) routing: BELDMZT

PARTS ORDERING

Parts may be ordered at the following addresses:

AUSTRIA
HORNYPHON
Vertriebsgesellschaft GmbH
Wienerbergstrasse 1
A 1101 Wien
Austria
Telex: 132.332

AUSTRALIA
MARANTZ AUSTRALIA
PTY., Ltd.
19 Chard Road
Brookvale, NSW 2100
Australia
Telex: 24121

BELGIUM
SVD DIVISION MARANTZ
Industrialaan 1
1720 Groot-Bijgaarden
Belgium
Telex: 24466

CHILE
MARANTZ
DIVISION OF PHILIPS S.A.
AV. Santa Maria, 0760
Casilla 2687
Santiago
Telex: 240.239

DENMARK
MARANTZ
DIVISION OF PHILIPS
SERVICE A/S
Prags Boulevard 80
Postbox 1919
DK-2300 København S
Denmark
Telex: 31201

FINLAND
MARANTZ
DIVISION OF OY PHILIPS Ab
Kaivokatu 8
00100 Helsinki
Finland
Telex: 124811

FRANCE
MARANTZ FRANCE
4 Rue Bernard Palissy
92600 Asnières
France
Telex: 611651

GERMANY
MARANTZ GERMANY GmbH
Max-Planck-Strasse 22
6072 Dreieich 1
Germany
Telex: 529821

THE NETHERLANDS
Elpro b.v.
De Limiet 3
4131 NR Vianen
The Netherlands
Telex: 47679

NORWAY
MARANTZ
DIVISION OF PHILIPS A/S
Sandstuveien 40
Oslo 6
Norway
Telex: 72640

GREAT BRITAIN
MARANTZ AUDIO U.K. Ltd
Unit 15/16
Saxon Way Industrial Estate
Moor Lane
Harmondsworth UB7 OLW
Great Britain
Telex: 935196

GREECE
SHERTON ELECTRONICS S.A.
P.O.Box 21025
Hippocratus Street 188
Athens 11471
Greece
Telex: 216.795

JAPAN
MARANTZ JAPAN, Inc.
35-1, 7-chome, Sagamiono
Sagamihara-shi, Kanagawa
Japan

KUWAIT
AL ALAMIAH ELECTRONICS
Ussama Building
Fahd al Saleem Street
P.O.Box 23781
Safat-Kuwait
Telex: 22694

ITALY
MARANTZ ITALIANA S.P.A.
Via Chiese, 74
20126 Milano
Italy

SAUDI ARABIA
AL ALAMIAH ELECTRONICS
P.O.Box 5954
University Street
Riyadh 11432
Saudi Arabia
Telex: 201530

SOUTH AFRICA
MARANTZ
DIVISION OF PHILIPS S.A.
Rainer House
Ove Street, 10
Doornfontein
Johannesburg
Telex: 483.456

SPAIN
PHONO S.A.
Ignacio Iglesias 10
Badalona (Barcelona)
Spain
Telex: 59355

SWEDEN
MARANTZ
DIVISION OF PHILIPS
Försäljning AB
Tegeluddsvägen 1
S-115 84 Stockholm
Sweden
Telex: 14060

SWITZERLAND
DYNAVOX ELECTRONICS
Route de Villars 105
1701 Fribourg
Switzerland
Telex: 942377

TURKEY
DOGRUOL Ltd.
I.M.C.
6 Blok N°6310
Unkapani
Istanbul
Turkey
Telex: 22085

MALTA
CACHIA & GALEA
Republic Street, 68D
Valetta
Telex: 1682

U.S.A.
MARANTZ COMPANY, Inc.
National Service Department
P.O.Box 577
Chatsworth, CA 91311
U.S.A.

All of the above locations are fully equipped to take care of your total service needs. Because various countries have differing configuration requirements, it is necessary that you contact the service facility in your particular country. In the event that there is no service location listed for your country, please, contact the nearest facility for the necessary assistance.

In case of difficulties, do not hesitate to contact the Technical Department at abovementioned address.

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How to use this service manual

- The "Common parts" which Marantz Japan, Inc. has established are eliminated from this service manual.
- These "Common parts" are applied to all models in the service manuals arranged and issued by MJI.
- To indicate clearly the common parts in the schematic diagram, a line is drawn above or under the Ref. Desig. No. of applicable parts.
- "Common parts" can be supplied from the Marantz service center as ever.
  In case of ordering, please establish the parts number of 10 figures following the procedure mentioned in this service manual "How to establish the parts number for common parts".

(NOTE)

When you order parts to the Marantz parts center, please take notice of the following points.

1) Please correctly write the parts number of 10 figures following the rule.
2) Since ordering parts by the Ref. Desig. No. or ratings indicated in the schematic diagram does not satisfy the above conditions, the Marantz parts supply system does not work properly.
   As this case is apt to cause a trouble, please pay attention to it.

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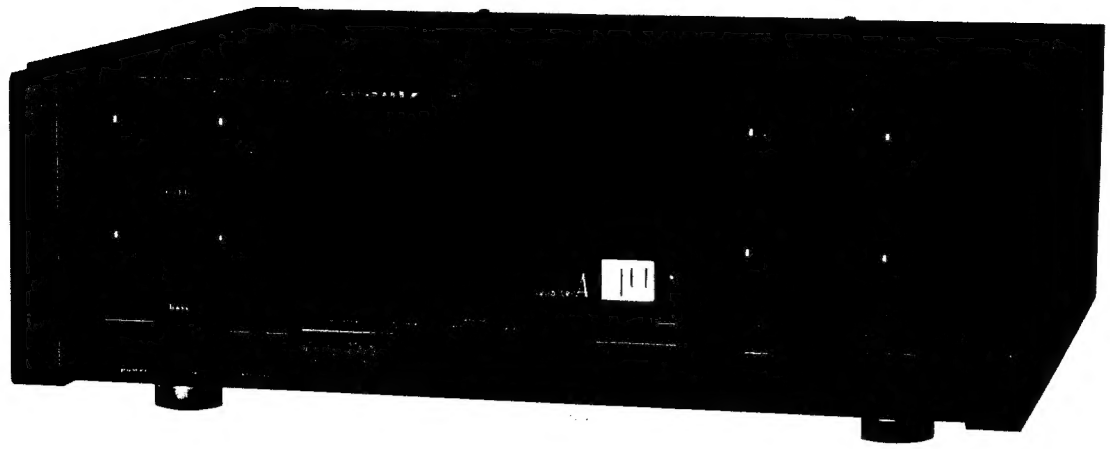
MODEL PM-94 STEREO AMPLIFIER



INTRODUCTION

This service manual was prepared for use by Authorized Warranty Stations and contains service information for the Marantz Model PM-94 Stereo Amplifier.

Servicing information and voltage data included in this manual are intended for use by knowledgeable and experienced personnel only. All instructions should be read carefully. No attempt should be made to proceed without a good understanding of circuitry operation.

The parts list furnishes complete ordering information. Most replacement parts should be ordered from the Marantz Company. However, a simple description is included for parts which can be obtained locally.

1. P.W. BOARDS

As can be seen from the circuit diagram the chassis of Model PM-94 consists of the following units. Each unit mounted on a printed circuit board is discribed within the square enclosed by a bold dotted line on the circuit diagram.

1. Tone (L) . . . . . mounted on P.W. Board PE01
2. Tone (R) . . . . . mounted on P.W. Board PE02
3. Flat Amp/Supply . . mounted on P.W. Board PG00
4. CD Direct/ Balance etc . . . . . mounted on P.W. Board PK00
5. Power Transistor . . mounted on P.W. Board PL00
6. Comparator/Protec/ Supply . . . . . mounted on P.W. Board PN00
7. Soft Start Ass'y . . . mounted on P.W. Board PN50
8. Main Volume . . . . . mounted on P.W. Board PQ00
9. Speaker Muting Relay . . . . . mounted on P.W. Board PR00
10. Phono/Speaker Selector . . . . . mounted on P.W. Board PR50
11. Tone/Tape 1. 2/ VCR/Muting . . . . . mounted on P.W. Board PT00
12. Function Selector . . mounted on P.W. Board PV00
13. Tape Play/ Rce/VCR . . . . . mounted on P.W. Board PW00
14. Function LED . . . . mounted on P.W. Board PY00
15. Tape/VCR/Muting Indicator . . . . . mounted on P.W. Board PZ00
16. Phono Amp/ Input Selector . . . . mounted on P.W. Board P400
17. Power Amp (L) . . . mounted on P.W. Board P600
18. Power Amp (R) . . . mounted on P.W. Board P700

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4. ADJUSTMENT PROCEDURE

1. Adjustment of output offset voltage

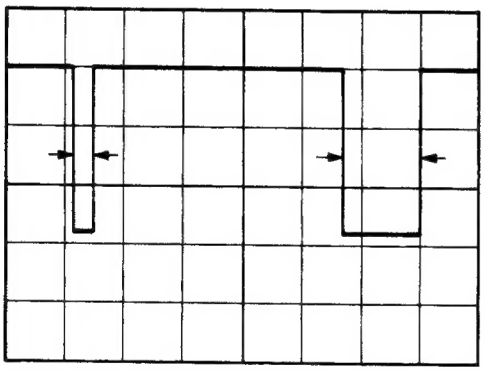
1) Remove the MAIN-IN and PRE-OUT plugs, and connect a digital voltmeter set to the DC range to the speaker terminals with no signal and no load on the unit.
2) Adjust R622 for L-ch and R722 for R-ch until the indication on the digital voltmeter is ±10 mV.

2. Idling adjustment

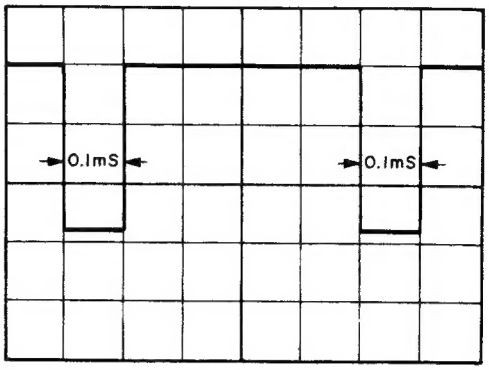
1) With no signal or load on the unit, short TP-1 and TP-3 on the P.W. Board (PN00).
2) Connect a digital voltmeter set to the DC range between J607 and J707 and adjust J643 and J743 for 36 mV.
3) Remove the short between TP-1 and TP-3, and R642 and R742 so that the voltage between J607 and J707 is 180 mV.

3. Adjustment of quarter "A"

1) Connect a DC voltmeter between the emitter and base of QL07 for L-ch. (The meter range is greater than 100 V, with the polarity of the emitter (+) and base (—).)
2) Connect the oscilloscope between TP-1 and TP-2 on the P.W. Board, and monitor the waveforms at TP-2 with TP-1 as the reference.
3) Connect an 8 ohm load to each of the speaker terminals, and input a 1 kHz to the L channel MAIN-IN. Adjust the input level so that the load on L-ch gives output of 17 V.
4) Rotate RN40 (RN41) on the P.W. Board (PN00) and monitor the waveforms on the oscilloscope.



5) Adjust RN42 (RN43) so that the pulse width is the same.
6) Adjust RN40 (RN41) again to make the pulse width 0.1 ms. Confirm that the voltage at the emitter of Q107 is 63 V.



7) Lower the input signal and confirm that the voltage at the speaker terminal is 16 V — 16.5 V and the voltage at the emitter of QL07 is 29 V at the point where the pulse disappears.
8) Next, connect the DC voltmeter between the emitter and base of QL08 for R-ch. (The meter range is greater than 100 V, with the polarity of the emitter (—) and base (+).)
9) Input a 1 kHz to the R channel MAIN-IN. Adjust the input level so that the load on R-ch gives output of 17 V.
10) Adjust items 4 to 7 in the same manner as L-ch. The adjustment locations are those shown in parenthesis.

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2. TEST EQUIPMENT REQUIRED FOR SERVICING

This table lists the test equipment required for servicing the Model PM-94 Stereo Amplifier.

Item	Use
Distortion Analyzer	Distortion measurements
Audio Oscillator	Sinewave and squarewave signal source
AC VTVM	Voltage measurements (AC)
Oscilloscope	Waveform analysis and trouble shooting and ASO alignment
Circuit Tester	Trouble shooting
DC VTVM	Voltage measurements (DC)
AC Wattmeter	Monitors primary power to amplifier
Line Voltmeter	Monitors potential of primary power to amplifier
Variable Autotransformer (0 ~ 140V AC, 10A)	Adjust level of primery power to amplifier
Shorting Plug	Shorts amplifier input to eliminate noise pickup

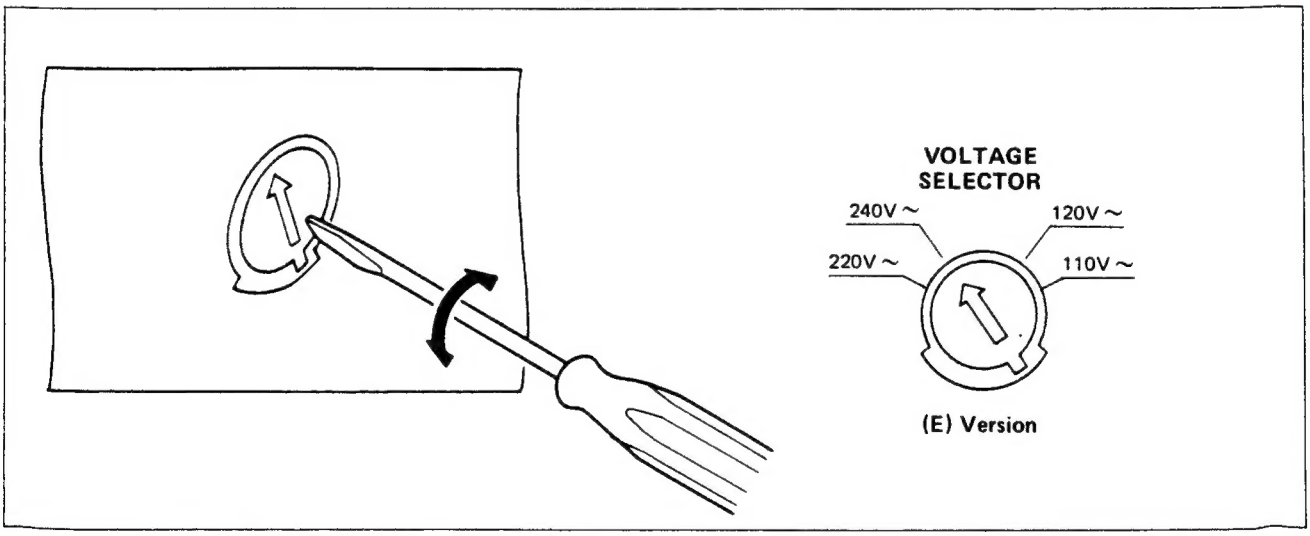
3. VOLTAGE CONVERSION

- **EUROPEAN MODEL ONLY**

To convert the unit to a different power source voltage, change the position as illustrated in the drawing below.

CAUTION
DISCONNECT POWER SUPPLY CORD FROM AC OUTLET BEFORE CONVERTING VOLTAGE.

Voltage Conversion Chart



(E) Version

Note on safety: Symbol ⚠ Fire or electrical shock hazard. Only original parts should be used to replace any part marked with symbol ⚠. Any other component substitution (other than original type), may increase risk of fire or electrical shock hazard.

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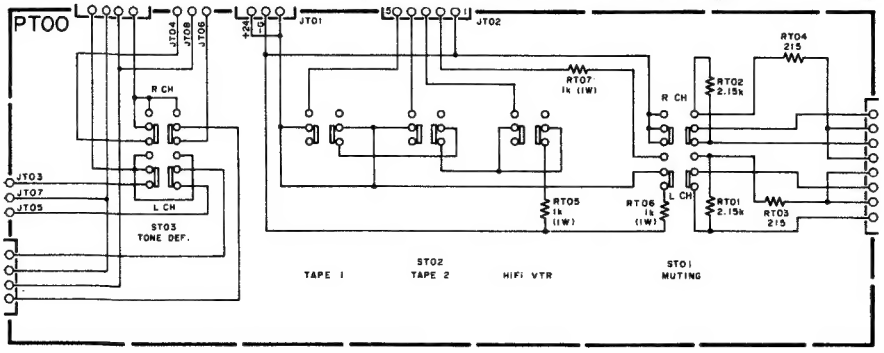
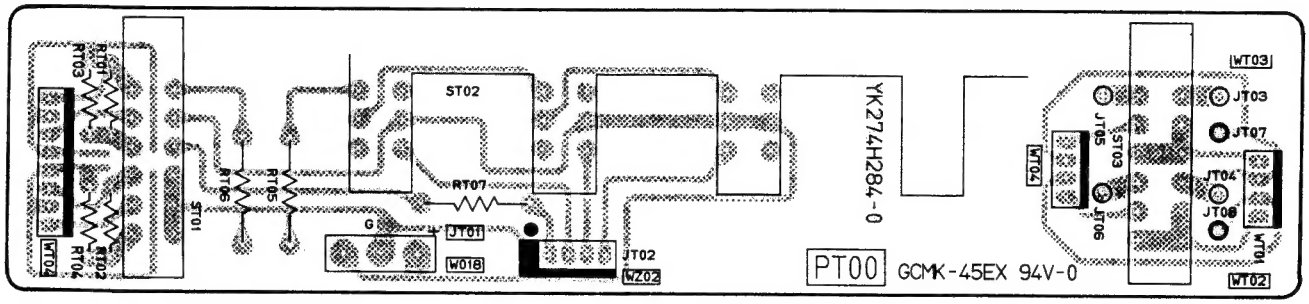
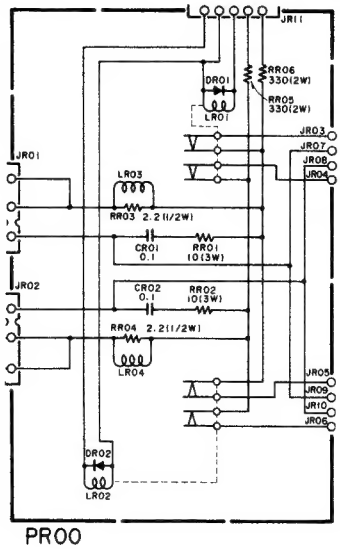
6. SCHEMATIC DIAGRAM AND COMPONENT LOCATIONS

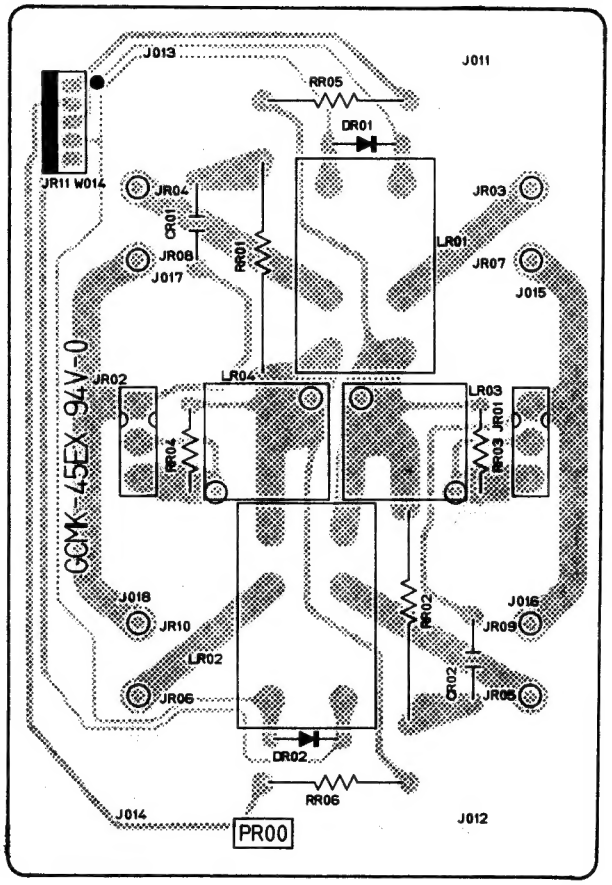
6.1 Tone/Tape 1, 2/VCR/Muting Assembly (PT00) Schematic Diagram and Component Locations





6.2 Speaker Muting Pelay Assembly (PR00) Schematic Diagram and Component Locations





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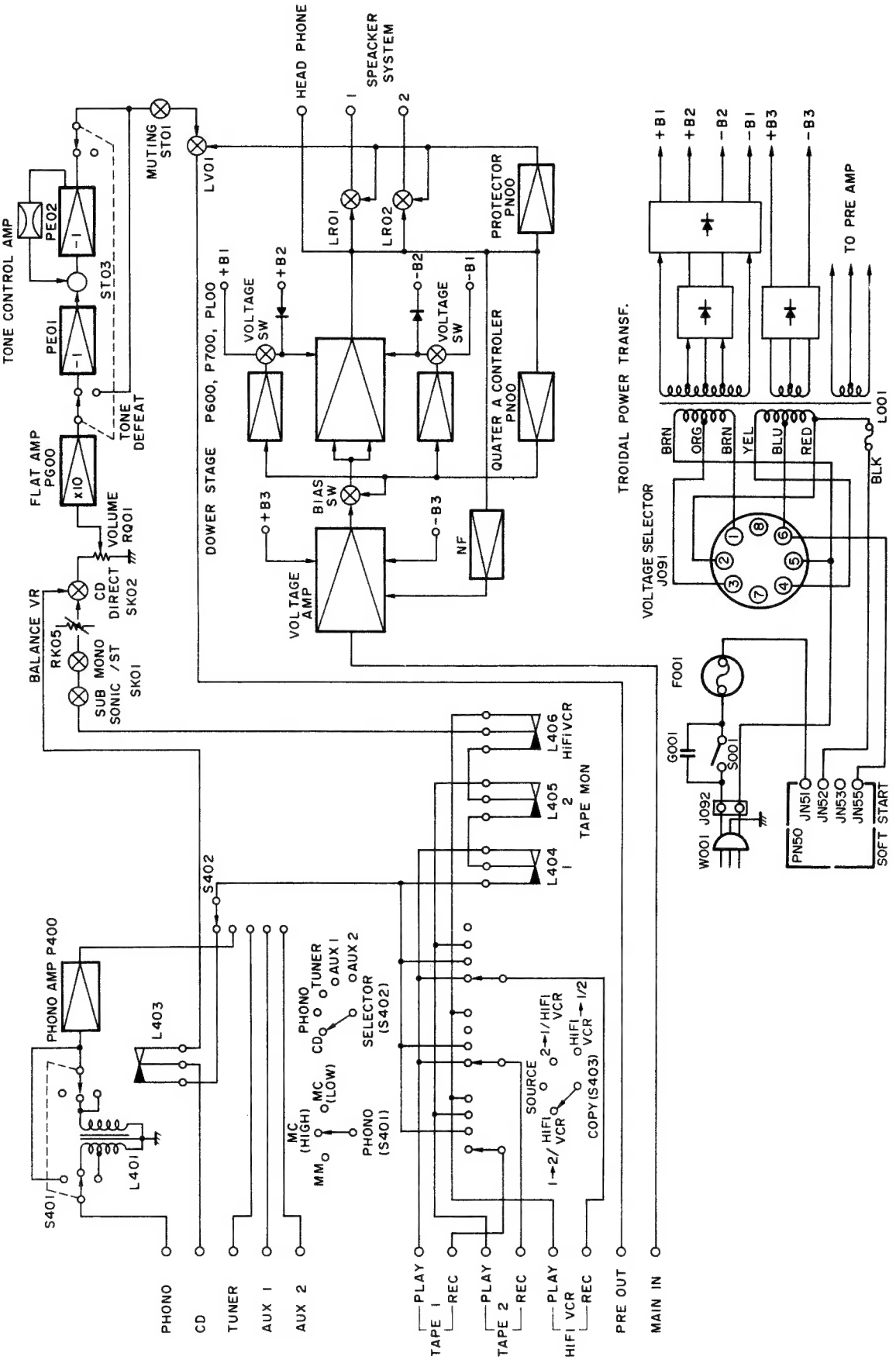
5. BLOCK DIAGRAM



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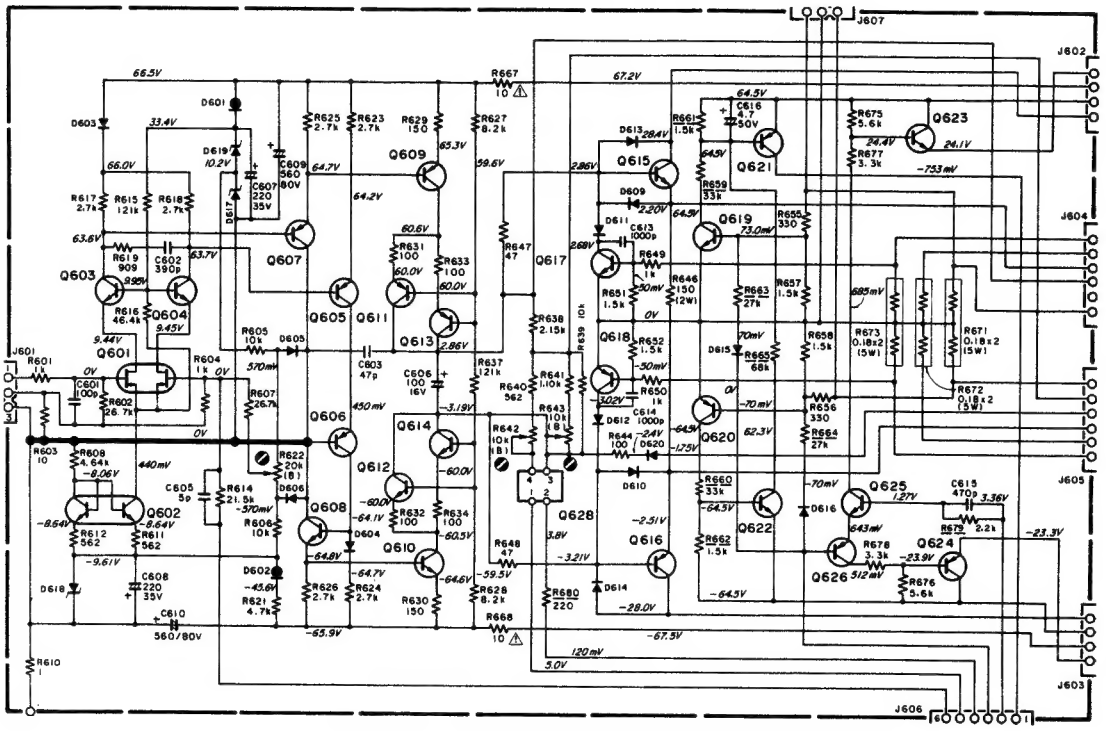
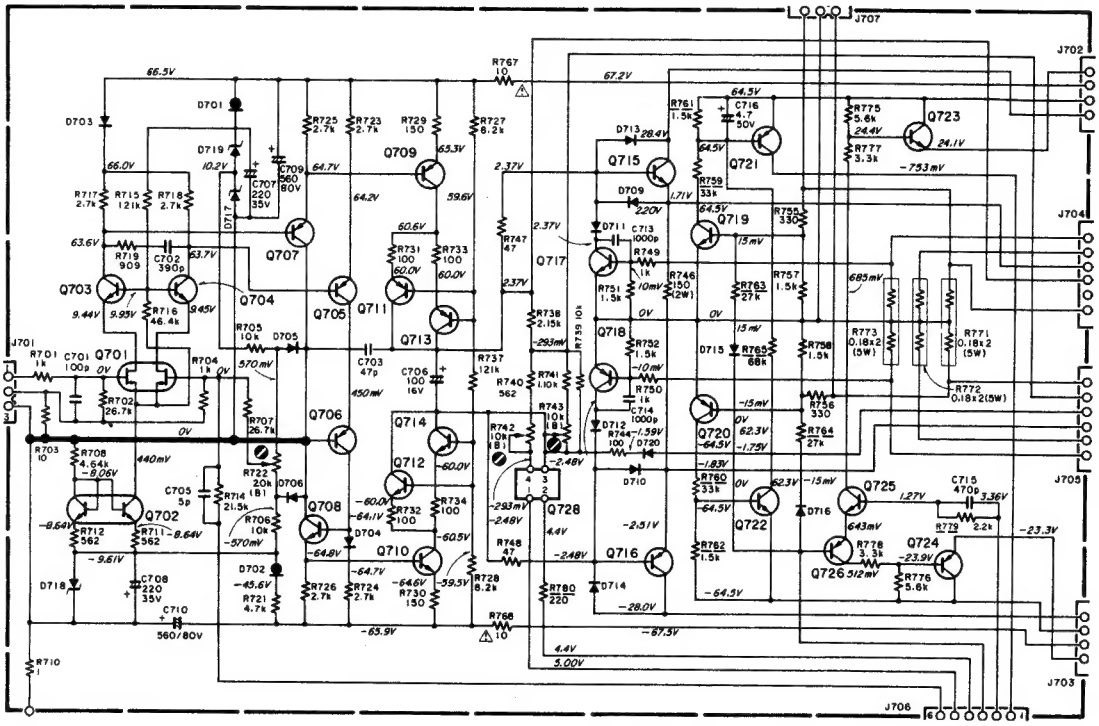
6.6 Power Amp.(L) Assembly (P600) Schematic Diagram and Component Locations

P600 (CH-L) (CLASS A)



6.7 Power Amp.(R) Assembly (P700) Schematic Diagram and Component Locations

P700(CH-R) (CLASS B)



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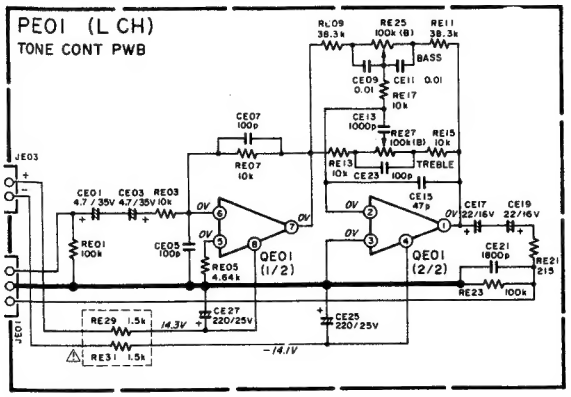
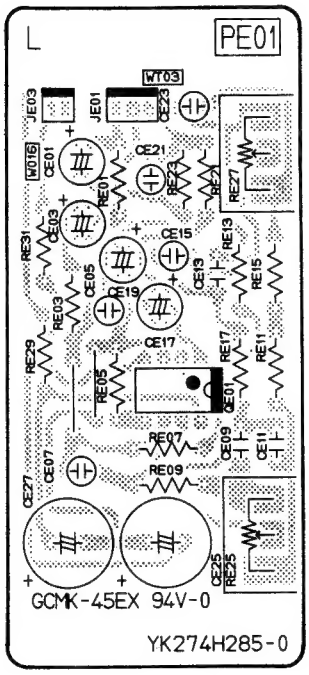
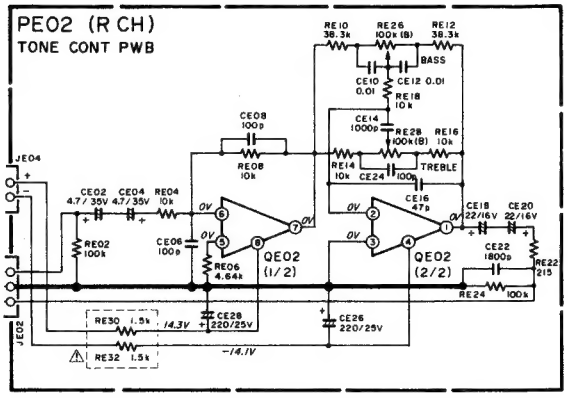
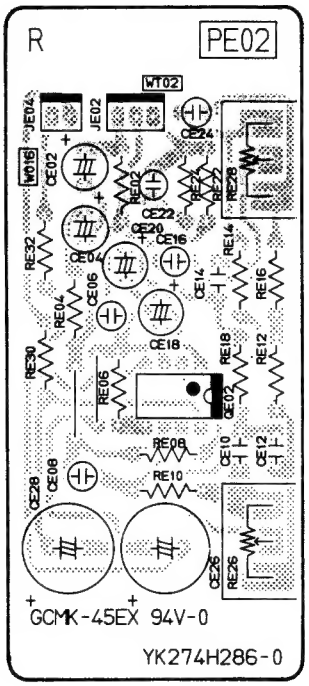
6.3 Tone (L) Assembly (PE01)
Schematic Diagram and Component Locations



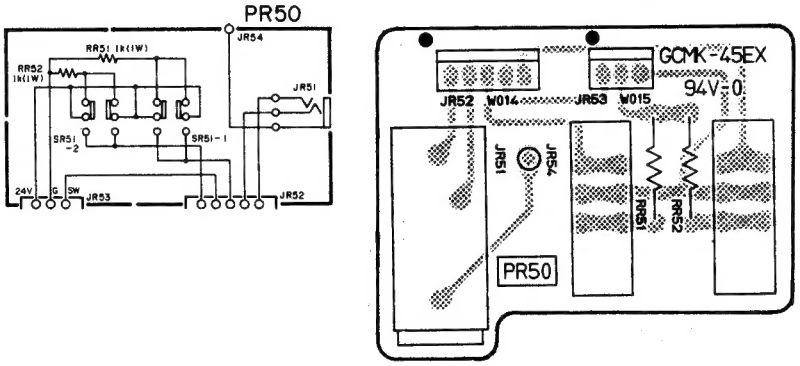


6.4 Tone (R) Assembly (PE02)
Schematic Diagram and Component Locations





6.5 Phone/Speaker Selector Assembly (PR50) Schematic Diagram and Component Locations



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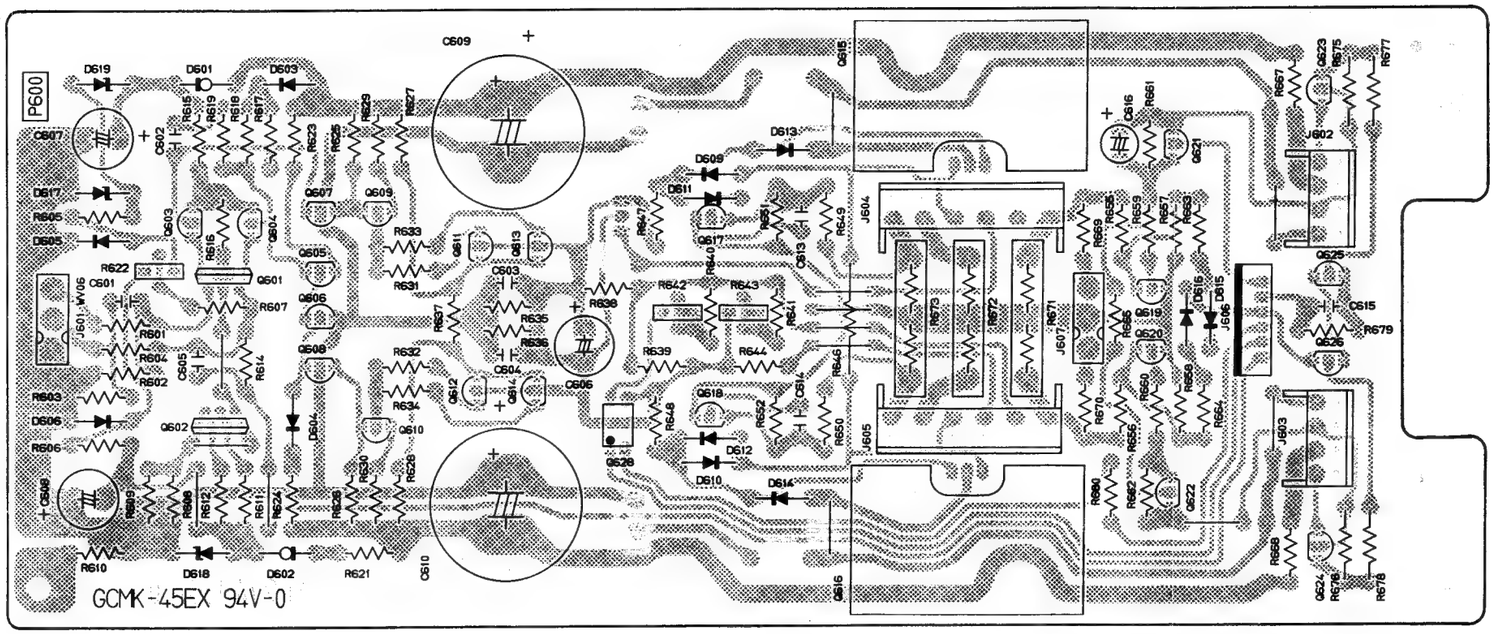

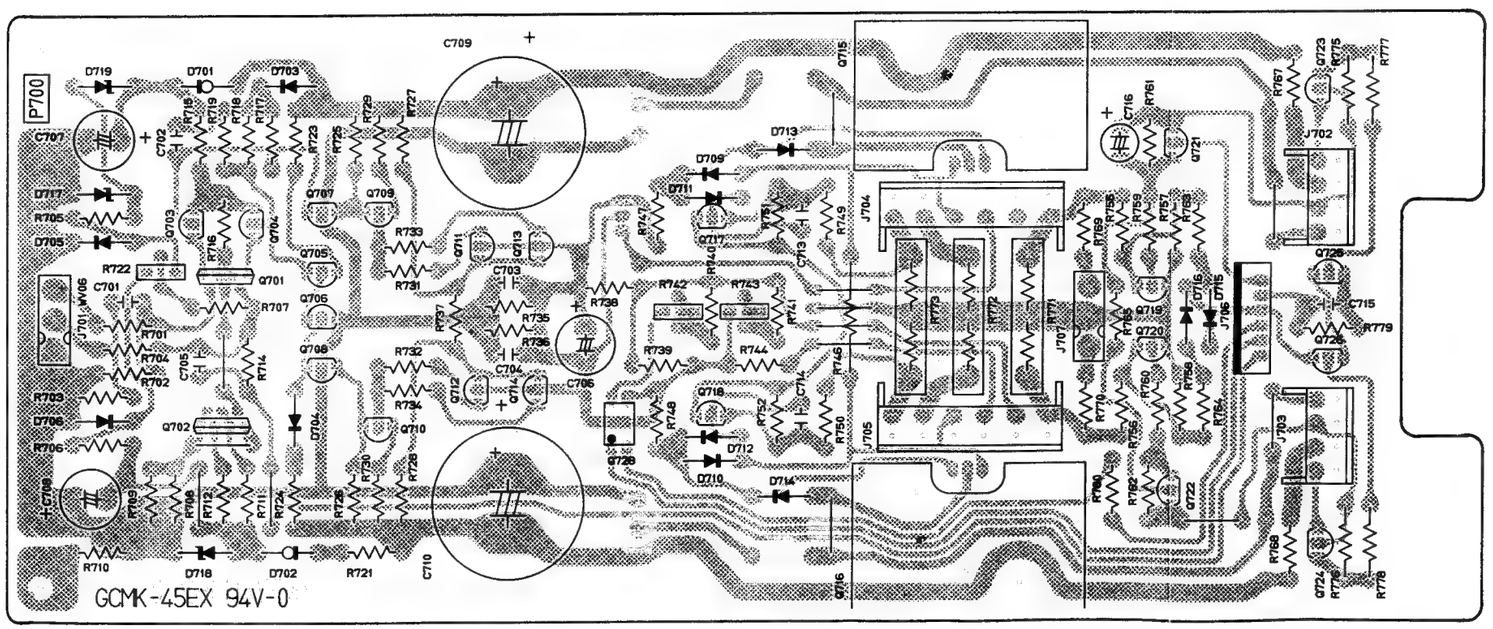

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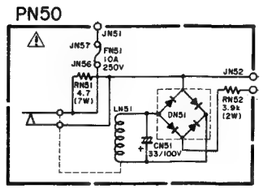
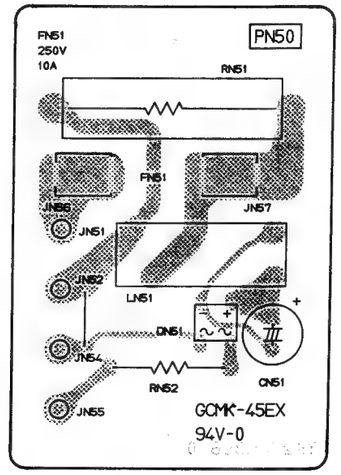
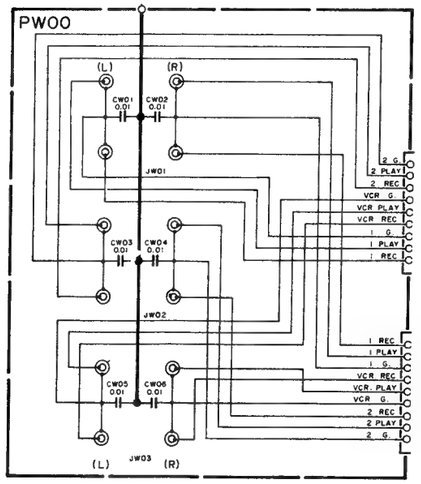
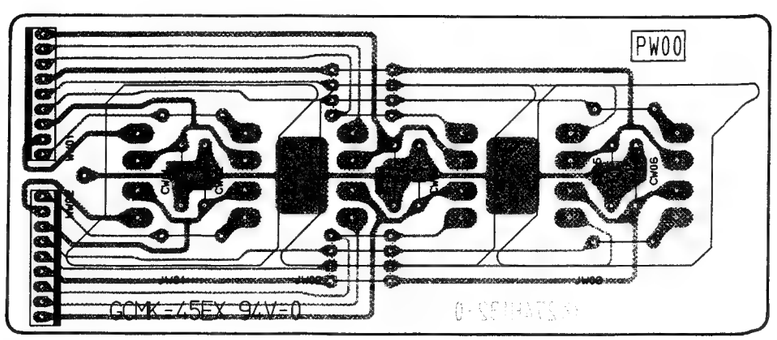
6.8 Soft Start Assembly (PN50) Schembly Diagram and Component Locations



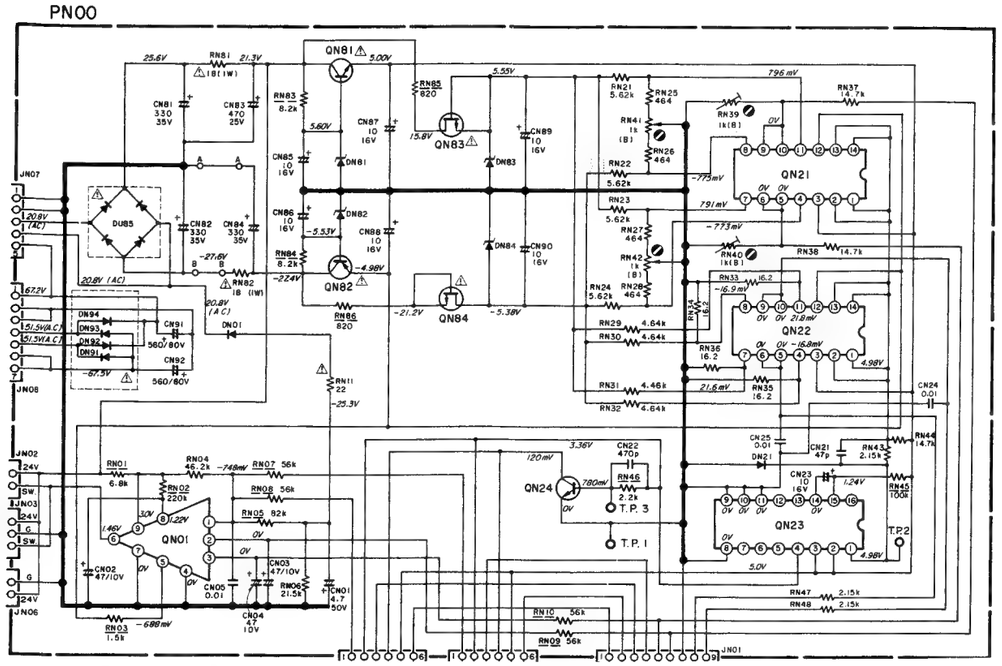


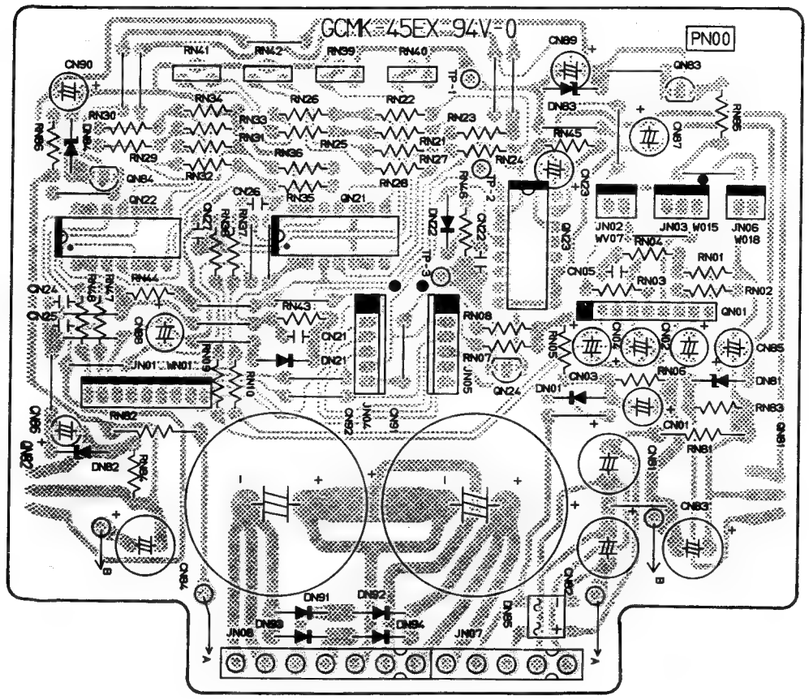
6.9 Tape Play/Rec/VCR Assembly (PW00) Schematic Diagram and Component Locations



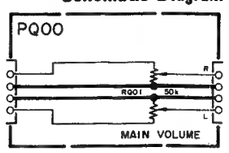


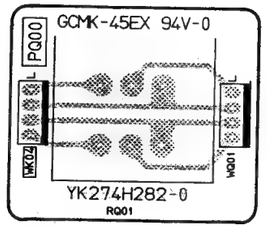
6.10 Comparator/Protec/Supply Assembly (PN00) Schematic Diagram and Component Locations



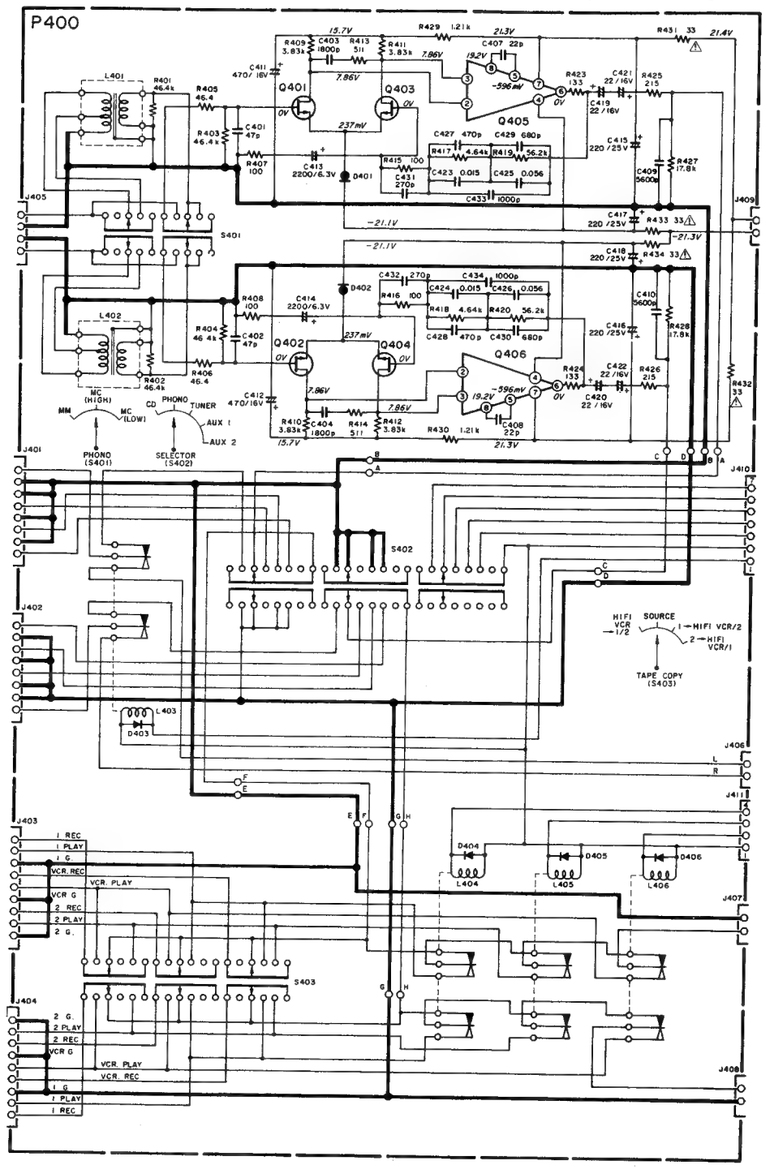


6.11 Main Volume Assembly (PQ00) Schematic Diagram and Component Locations





6.12 Phono Amp/Input Selector Assembly (P400) Schematic Diagram and Component Locatio



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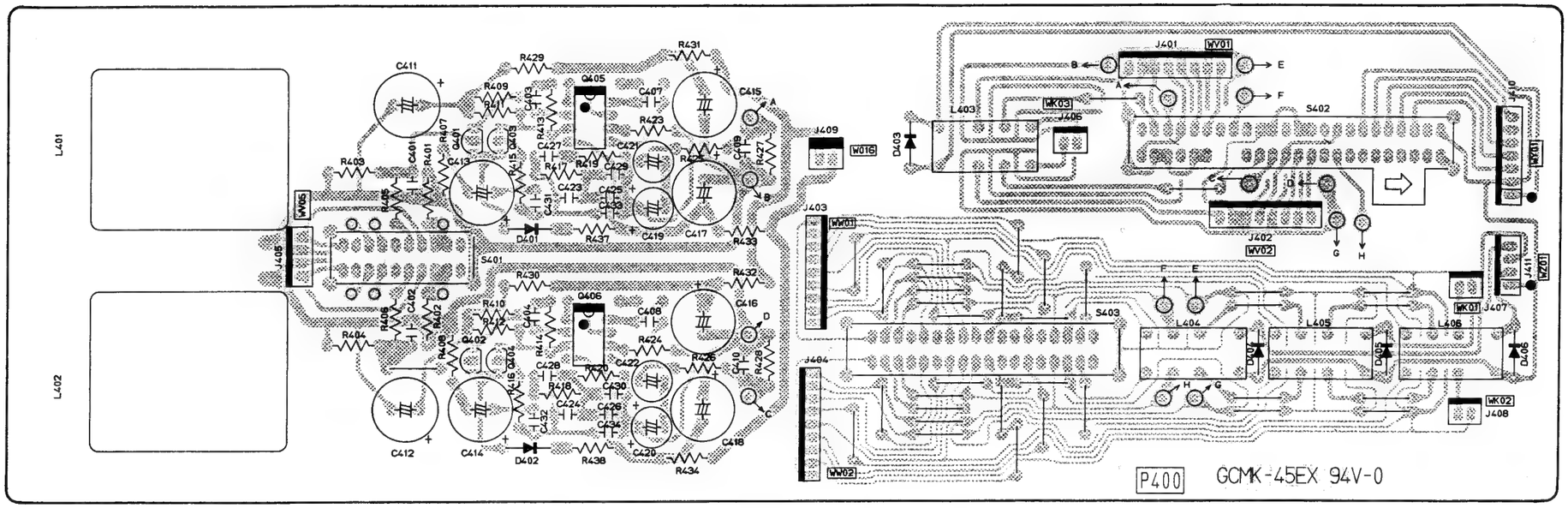
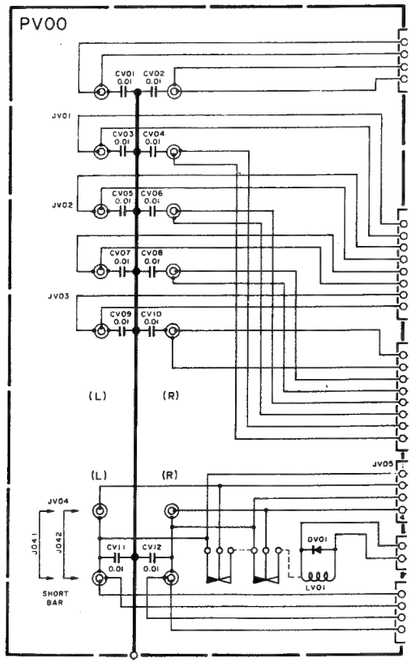
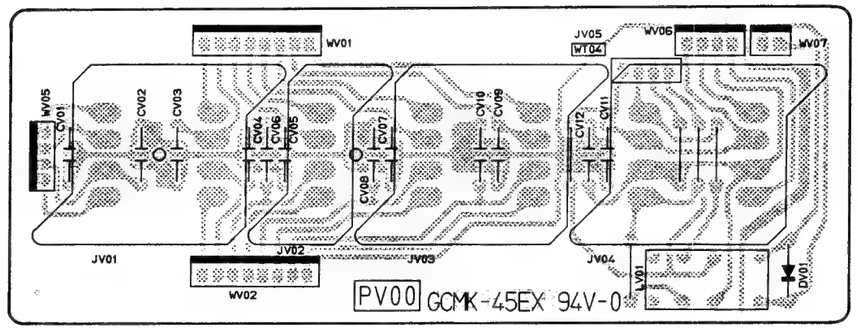
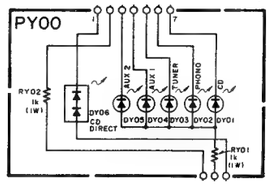


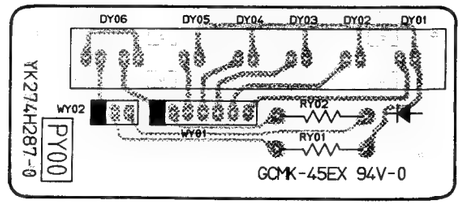
6.13 Function Selector Assembly (PV00) Schematic Diagram and Component Locations



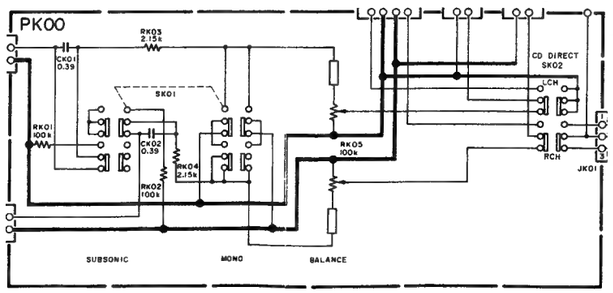


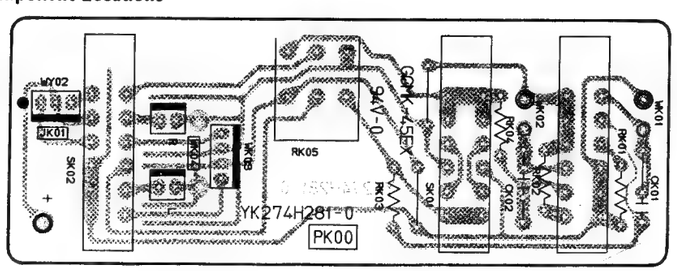
6.14 Function LED Assembly (PY00) Schematic Diagram and Component Locations





6.15 CD Direct/Balance etc. Assembly (PK00) Schematic Diagram and Component Locations





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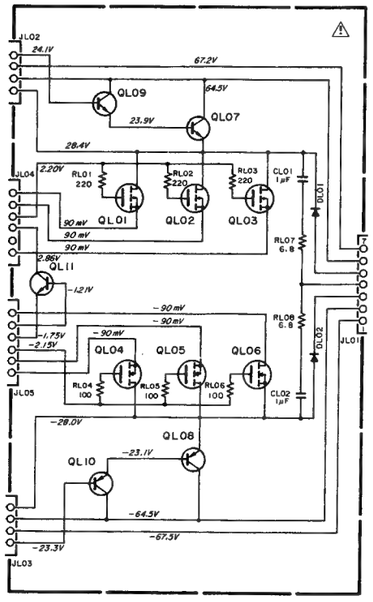
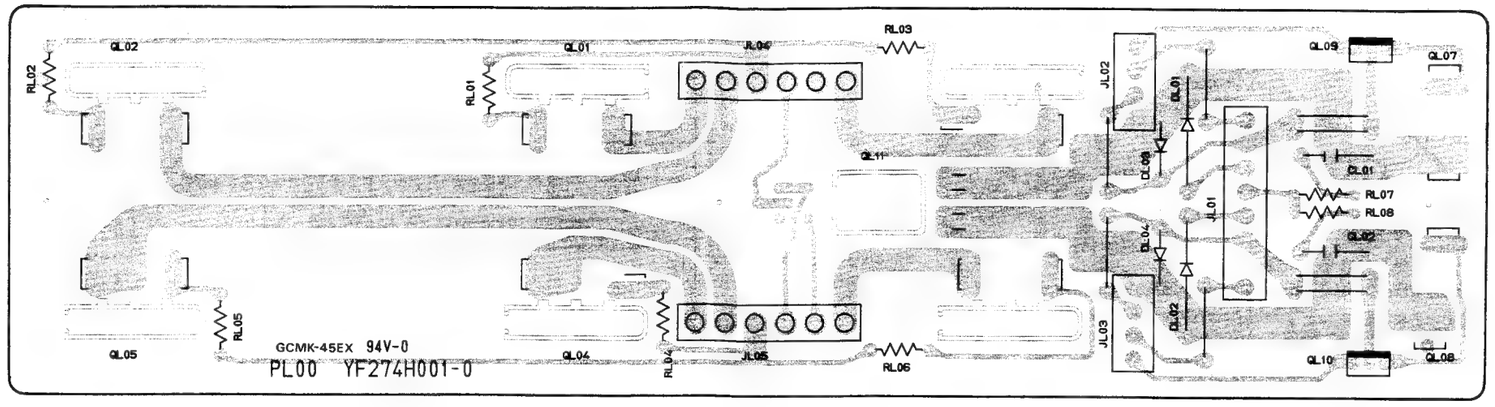
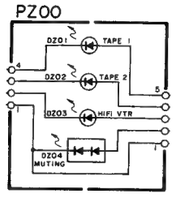
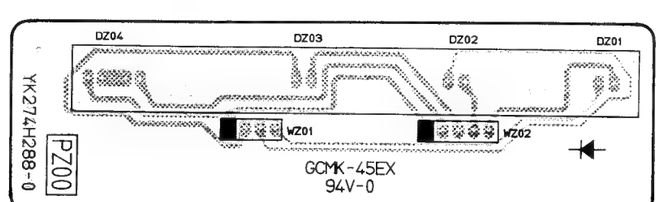
6.16 Power Transistor Assembly (PL00) Schematic Diagram and Component Locations



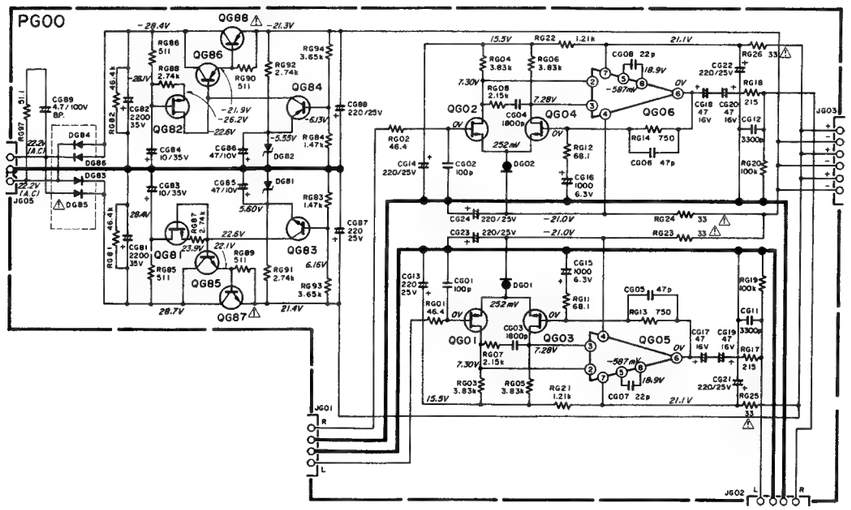


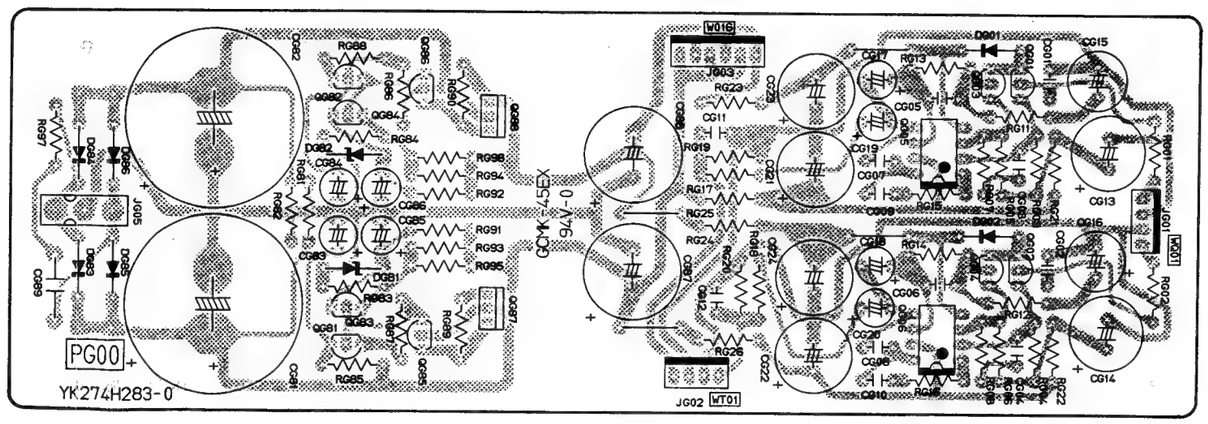
6.18 Tape/VCR/Muting Indicator Assembly (PZ00) Schematic Diagram and Component Locations





6.17 Flat Amp/Supply Assembly (PG00) Schematic Diagram and Component Locations





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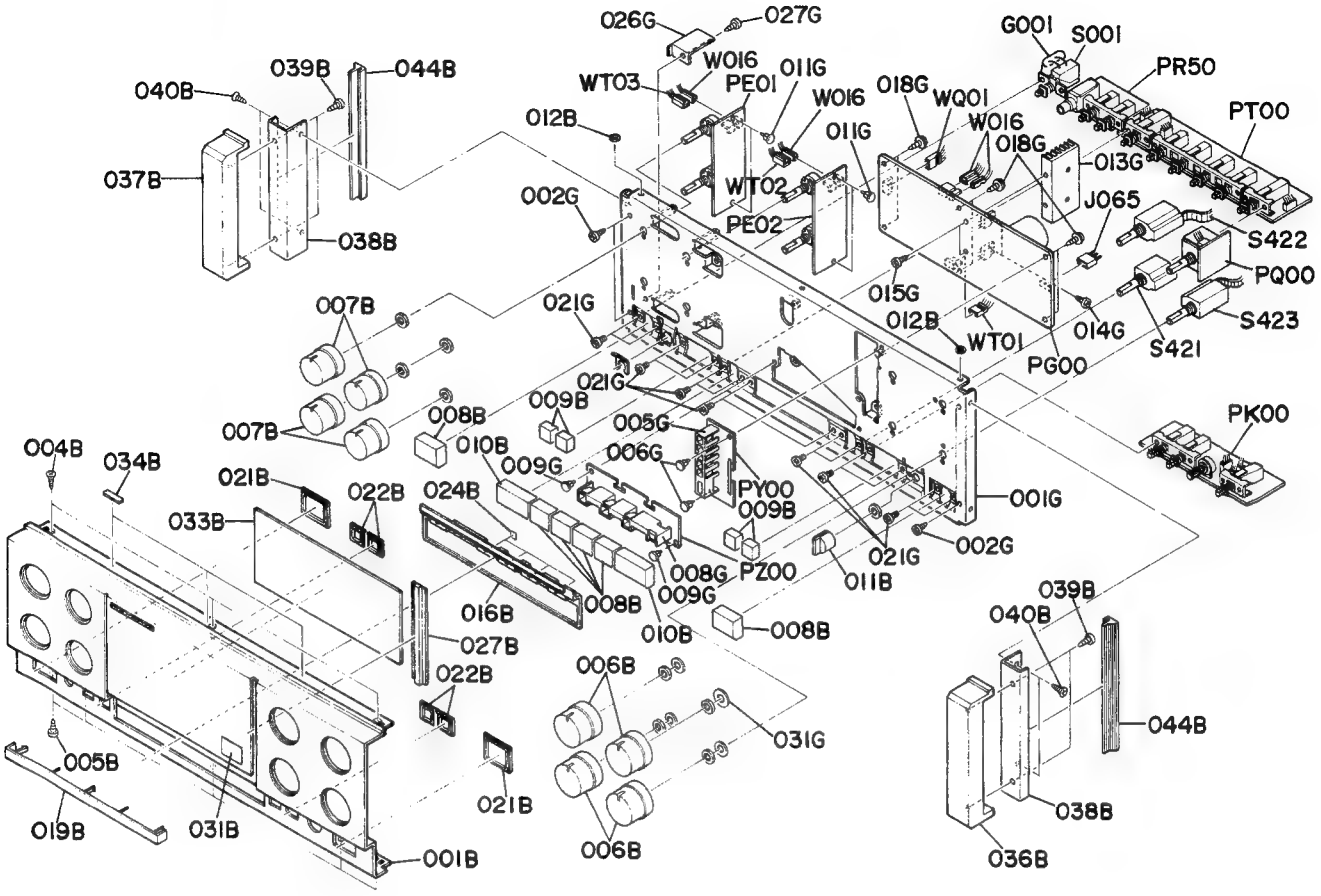
7. EXPLODED VIEW AND PARTS LIST

•[C01-99] Front Panel and Chassis



REF. DESIG.	PART NO.	DESCRIPTION
A	274H248400	Front Panel Assembly
001B	274H248510	Front Panel, K
016B	274H259510	Bushing, K
019B	274H053010	Cover, Tape Monitor
021B	242H259120	Bushing, Power/CD Direct
022B	242H259130	Bushing, SPK./Subsonic/Mono
027B	274H158010	Window, Function
031B	274H251010	Badge, MOS FET
033B	274H120030	Insulator
004B	51500308M0	F.H. Taptite Screw F3 x 8
005B	51280306M0	B.H. Tapped Screw B3 x 6
006B	242H154210	Knob, Volume/Function
007B	242H154220	Knob, Tone
008B	242H270110	Button, Power/CD/Tape Monitor
009B	242H270120	Button, SPK./Subsonic/Mono
010B	274H270010	Button, Tone/Muting
011B	263H154130	Knob, Balance
012B	2232118300	Spacer
024B	274H151010	Introducer
034B	032C056010	Buffer
036B	274H063010	Escutcheon, Side (R)
037B	274H063020	Escutcheon, Side (L)
038B	274H160050	Bracket, Side Escutcheon
039B	51280308M0	B.H. Tapped Screw B3 x 8
040B	51280308M0	B.H. Tapped Screw B3 x 8
044B	274H067010	Cap, Side

REF. DESIG.	PART NO.	DESCRIPTION
001G	274H105020	Chassis, Front
002G	51280308M0	B.H. Tapped Screw B3 x 8
005G	274H271010	Holder, Selector LED
006G	2276005050	Clamper, Selector P.W. Board
008G	274H271020	Holder, Tape Monitor LED
009G	2276005050	Clamper, Tape Monitor P.W. Board
011G	2276005050	Clamper, Tone P.W. Board
013G	274H267030	Heatsink, Front P.W. Board
014G	51280308M0	B.H. Tapped Screw B3 x 8
015G	51280306M0	B.H. Tapped Screw B3 x 6
018G	51260306M0	B.T. Screw B3 x 6
021G	51100306M0	B.H.M. Screw B3 x 6
026G	274H109030	Shield, Power Switch
027G	51280308M0	B.H. Tapped Screw B3 x 8
031G	274H012010	Washer, Volume
⚠G001	BF10400060	Cap. Composite
⚠S001	SP01010820	Push Switch, Power
J065	YJ06001040	Jack, 3P
W016	YB00560030	Connective Cord
WT01	YB00160230	Connective Cord, 4P
WT02	YB00220210	Connective Cord, 3P
WT03	YB00300920	Connective Cord, 3P
WQ01	YB00430020	Connective Cord, 4P
S421	SR04030380	Rotary Switch Assembly, Phono
S422	SR06050230	Rotary Switch Assembly, Selector
S423	SR06040220	Rotary Switch Assembly, Tape Copy

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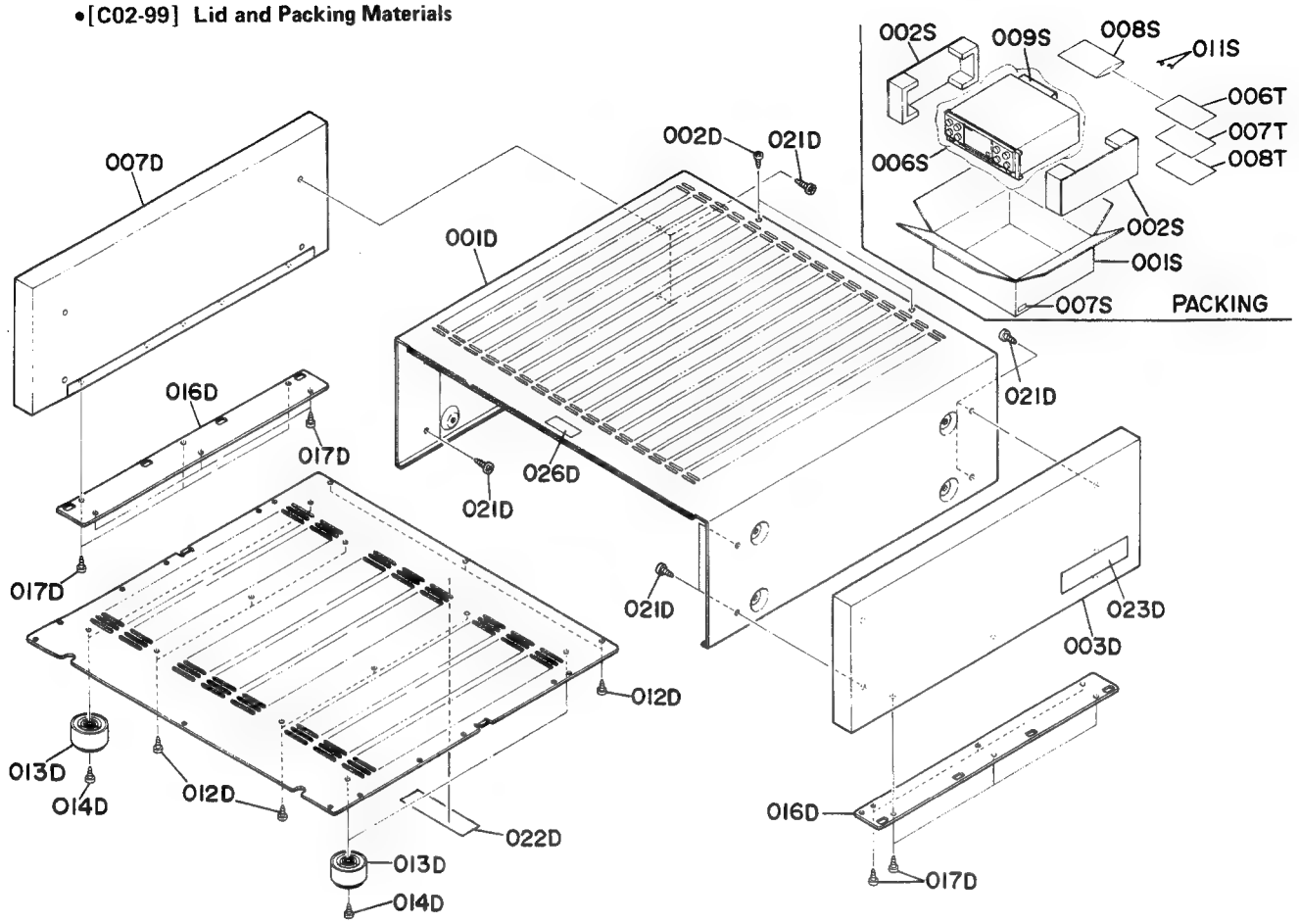
•[C02-99] Lid and Packing Materials



REF. DESIG.	PART NO.	DESCRIPTION
001D	274H257010	Lid, Top Cover
002D	274H010010	Screw
003D	274H249530	Side Panel, Wood (K) [R]
007D	274H249540	Side Panel, Wood (K) [L]
011D	274H257020	Lid, Bottom Cover
012D	51280308M0	B.H. Tapped Screw B3 x 8
013D	238H057010	Leg
014D	51280412M0	B.H. Tapped Screw B4 x 12
016D	274H160070	Bracket
017D	51280308M0	B.H. Tapped Screw B3 x 8
021D	51280412M0	B.H. Tapped Screw B3 x 8
022D	2911861110	Label
023D	2911861140	Label
026D	222H861020	Label, Caution

REF. DESIG.	PART NO.	DESCRIPTION
		PACKING
001S	274H801020	Packing Case
002S	274H809520	Cushion, (K)
006S	9091111030	Polyethylene Sheet
007S	9526019060	Serial No. Card
008S	9012540010	Polyethylene Bag
009S	2864804010	Sleeve
011S	YQ01000020	Shote Plug
006T	274H851310	User Manual
007T	274H851320	User Manual Spec.
008T	274H856010	Circuit Diagram

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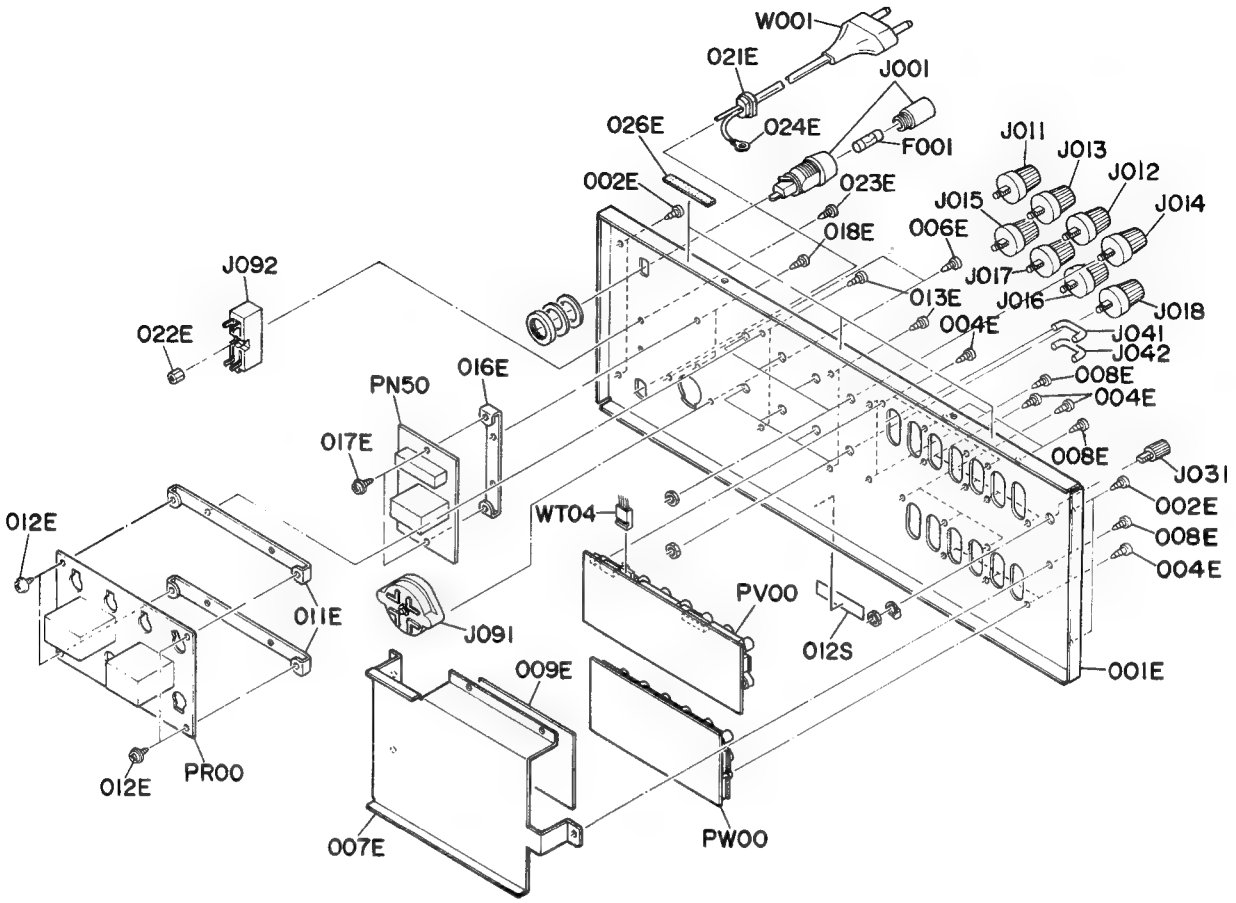
•[C03-99] Rear Panel



REF. DESIG.	PART NO.	DESCRIPTION
001E	274H250020	Rear Panel
002E	51280308M0	B.H. Tapped Screw B3 x 8
004E	51280308M0	B.H. Tapped Screw B3 x 8
006E	51280308M0	B.H. Tapped Screw B3 x 8
007E	274H109010	Shield
008E	51280308M0	B.H. Tapped Screw B3 x 8
009E	274H120020	Insulator
011E	274H160030	Bracket, Speaker P.W. Board
012E	51480306M0	F. Washer Screw F3 x 6
013E	51100306M0	B.H.M. Screw B3 x 6
016E	274H160040	Bracket, Soft Start P.W. Board
017E	51480306M0	F. Washer Screw F3 x 6
018E	51100306M0	B.H.M. Screw B3 x 6
021E	1455259050	Bushing, AC Power Cord
022E	274H101030	Support
023E	51100306M0	B.H.M. Screw B3 x 6
024E	62030049W0	Lug
026E	2965118010	Spacer
012S	2112265110	Indicator Serial No.

REF. DESIG.	PART NO.	DESCRIPTION
F001	FS10500800	Fuse, 5A
J001	YJ08000290	Jack, Fuse Holder
J011	YT01010100	Terminal, Speaker 1; CH-L(+)
J012	YT01010100	Terminal, Speaker 1; CH-R(+)
J013	YT01010110	Terminal, Speaker 1; CH-L(−)
J014	YT01010110	Terminal, Speaker 1; CH-R(−)
J015	YT01010100	Terminal, Speaker 2; CH-L(+)
J016	YT01010100	Terminal, Speaker 2; CH-R(+)
J017	YT01010110	Terminal, Speaker 2; CH-L(−)
J018	YT01010110	Terminal, Speaker 2; CH-R(−)
J031	YT01010150	Terminal, GND
J041	YQ01000070	Shote Plug
J042	YQ01000070	Shote Plug
J091	BY05080050	Voltage Selector
J092	YL09040020	Terminal
⚠W001	YC01900090	AC Power Cord
WT04	YB00740010	Connective Cord

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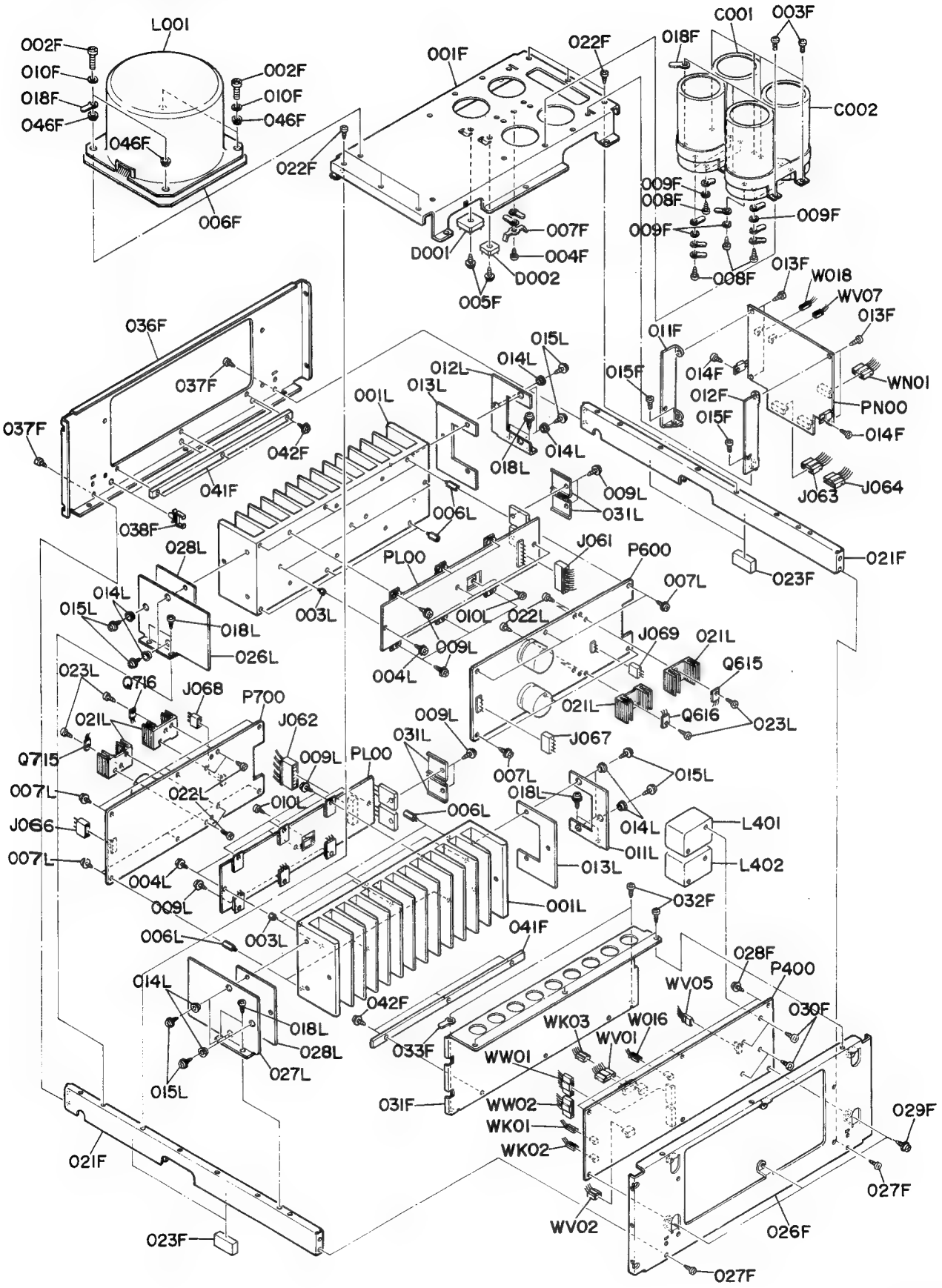
• [P01-99] Main Chassis



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REF. DESIG.	PART NO.	DESCRIPTION
001F	274H105010	Chassis, Main
002F	51280412M0	B.H Tapped Screw B4 x 12
003F	51280406M0	B.H. Tapped Screw B4 x 6
004F	51280412M0	B.H. Tapped Screw B4 x 12
005F	51260312M0	B.T. Screw B3 x 12
006F	274H120060	Insulator, Power Transformer
007F	274H123010	Contactor, Earth
008F	51100408M0	B.H.M. Screw B4 x 8
009F	274H118010	Spacer
010F	54020401M0	Flat Washer, P.
011F	274H160010	Bracket, (L)
012F	274H160020	Bracket, (R)
013F	51260306M0	B.T. Screw B3 x 6
014F	51280308M0	B.H. Tapped Screw B3 x 8
015F	51280308M0	B.H. Tapped Screw B3 x 8
018F	4220005040	Clamper
021F	274H126010	Stay
022F	51280406M0	B.H Tapped Screw B4 x 6
023F	100H056010	Buffer
026F	274H105030	Chassis, Side (R)
027F	51280308M0	B.H. Tapped Screw B3 x 8
028F	2276005050	Clamper, Phono Amp P.W. Board
029F	51260306M0	B.T. Screw B3 x 6
030F	51100205E0	B.H.M. Screw B2 x 5
031F	274H109020	Shield, Side
032F	51280308M0	B.H. Tapped Screw B3 x 8
033F	62030049W0	Lug, Earth
036F	274H105040	Chassis, Side (L)
037F	51280308M0	B.H. Tapped Screw B3 x 8
038F	274H005010	Clamper
041F	274H056010	Buffer
042F	51260308M0	B.T. Screw B3 x 8
046F	203H259020	Bushing
001L	274H267010	Heatsink, Main
003L	274H101010	Support, Power Transistor P.W. Board
004L	51480306M0	F. Washer Screw F3 x 6
006L	274H101020	Support, Power Amp P.W. Board
007L	51480306M0	F. Washer Screw F3 x 6
009L	51260312M0	B.T. Screw B3 x 12
010L	51280308M0	B.H. Tapped Screw B3 x 8
011L	274H104010	Retainer, 1; Heatsink
012L	274H104020	Retainer, 2; Heatsink
013L	274H120010	Insulator, 1; Heatsink
014L	223H259020	Bushing
015L	51260312M0	B.T. Screw B3 x 12
018L	51280308M0	B.H. Tapped Screw B3 x 8
021L	274H267020	Heatsink, Transistor
022L	51280308M0	B.H. Tapped Screw B3 x 8
023L	51280308M0	B.H. Tapped Screw B3 x 8
026L	274H104110	Retainer, 3; Heatsink
027L	274H104120	Retainer, 4; Heatsink
028L	274H120020	Insulator, 2; Heatsink
031L	274H053020	Cover, Transistor

REF. DESIG.	PART NO.	DESCRIPTION
⚠C001	EI18908010	Elect Cap. 18000μF 80V
⚠C002	EI27905010	Elect Cap. 27000μF 50V
⚠D001	HE20014290	Diode S10VB-20
⚠D002	HE20015290	Diode S4VB-20
J061	YB00250330	Connective Cord, 7P
J062	YB00270130	Connective Cord, 7P
J063	YJ06001250	Jack, 5P
J064	YJ06001260	Jack, 7P
J066	YJ06001040	Jack, 3P
J067	YJ06001040	Jack, 3P
J068	YJ06001040	Jack, 3P
J069	YJ06001040	Jack, 3P
⚠L001	TS40601020	Power Transformer
Q615	HT326823A0	Transistor 2SC2682(P, Q, R)
Q616	HT111423A0	Transistor 2SA1142(P, Q, R)
Q715	HT326823A0	Transistor 2SC2682(P, Q, R)
Q716	HT111423A0	Transistor 2SA1142(P, Q, R)
W016	YB00560030	Connective Cord
W018	YB00600310	Connective Cord, 2P
WK01	YB00280310	Connective Cord, 2P
WK02	YB00240100	Connective Cord, 2P
WK03	YB00230240	Connective Cord, 4P
WN01	YB00220190	Connective Cord, 9P
WV01	YB00400510	Connective Cord, 8P
WV02	YB00480060	Connective Cord, 8P
WV05	YB00140200	Connective Cord, 4P
WV07	YB00180240	Connective Cord, 2P
WW01	YB00340050	Connective Cord, 9P
WW02	YB00280300	Connective Cord, 9P
L401	TI11606010	Input Transformer, CH-L
L402	TI11606010	Input Transformer, CH-R

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ASSIGNMENT OF COMMON PARTS CODES.

RESISTOR

R***: (1) GD05 --- 140, Carbon film fixed resistor, ±5%, 1/4W
R***: (2) GD05 --- 160, Carbon film fixed resistor, ±5%, 1/6W
① — Resistance value

Examples
① Resistance value

0.1Ω...001	10Ω...100	1kΩ...102	100kΩ...104
0.5Ω...005	18Ω...180	2.7kΩ...272	680kΩ...684
1Ω...010	100Ω...101	10kΩ...103	1MkΩ...105
6.8Ω...068	390Ω...391	22kΩ...223	4.7MkΩ...475

(Note) Please distinguish 1/4W from 1/6W by the shape of parts used actually.

C***: CERAMIC CAP.
(1) DD1 --- 370, Ceramic condenser
①② Disc type
Temp. coeff. P350 ~ N1000, 50V
Capacity value
Tolerance

Examples
① Tolerance (Capacity deviation)
±0.25pF...0
±0.5pF...1
±5%...5
* Tolerance of COMMON PARTS handled here are as follows:
0.5pF ~ 5pF...±0.25pF
6pF ~ 10pF...±0.5pF
12pF ~ 560pF...±5%
② Capacity value

0.5pF...005	3pF...030	100pF...101
1pF...010	10pF...100	220pF...221
1.5pF...015	47pF...470	560pF...561

C***: CERAMIC CAP.
(1) DK16 --- 300, High dielectric constant ceramic condenser
① Disc type
Temp. chara. 2B4, 50V
Capacity value

Example
② Capacity value

100pF...101	1000pF...102
470pF...471	2200pF...222
	10000pF...103

C***: ELECTROLY CAP. (⧺), FILM CAP. (⧻)
(1) EA ------ 10, Electrolytic condenser
①② One-way lead type, Tolerance ±20%
Dielectric strength
Capacity value

Examples
① Capacity value

0.1μF...104	4.7μF...475	100μF...107
0.33μF...334	10μF...106	330μF...337
1μF...105	22μF...226	1100μF...108
		2200μF...228

② Working voltage

6.3V...006	25V...025
10V...010	35V...035
16V...016	50V...050

(2) DF15 --- 350, Plastic film condenser
① One-way type, Mylar ±5% 50V
Capacity value

Examples
① Capacity value

0.001μF (1000pF)...102	0.1μF...104
0.0018μF.....182	0.56μF...564
0.01μF.....103	1μF...105
0.015μF.....153	

8. ELECTRICAL PARTS LIST

REF. DESIG.	PART NO.	DESCRIPTION		
		P400-PHONO AMP/INPUT SELECTOR CIRCUIT BOARD		
P400	YK274H1310	P.W. Board, Phono Amp/Input Selector		
	ZZ274H8310	P.W. Board Assembly		
		P400-CAPACITORS		
C401	DF56470520	Film	47pF ±10%	125V
C402	DF56470520	Film	47pF ±10%	125V
C403	OF55182520	Film	1800pF ±5%	125V
C404	OF55182520	Film	1800pF ±5%	125V
C407	DF56220520	Film	22pF ±10%	125V
C408	DF56220520	Film	22pF ±10%	125V
C409	OF15562520	Film	5600pF ±5%	100V
C410	OF15562520	Film	5600pF ±5%	100V
C411	OA47701650	Elect	470μF	16V
C412	OA47701650	Elect	470μF	16V
C413	OA22800610	Elect	2200μF	6.3V
C414	OA22800610	Elect	2200μF	6.3V
C415	OA22702550	Elect	220μF	25V
C416	OA22702550	Elect	220μF	25V
C417	OA22702550	Elect	220μF	25V
C418	OA22702550	Elect	220μF	25V
C419	EA22601660	Elect	22μF	16V
C420	EA22601660	Elect	22μF	16V
C421	EA22601660	Elect	22μF	16V
C422	EA22601660	Elect	22μF	16V
C423	OF15153520	Film	0.015μF ±5%	100V
C424	OF15153520	Film	0.015μF ±5%	100V
C425	OF15563520	Film	0.056μF ±5%	100V
C426	OF15563520	Film	0.056μF ±5%	100V
C427	DF55471520	Film	470pF ±5%	125V
C428	DF55471520	Film	470pF ±5%	125V
C429	DF55681520	Film	680pF ±5%	125V
C430	DF55681520	Film	680pF ±5%	125V
C431	DF55271520	Film	270pF ±5%	125V
C432	DF55271520	Film	270pF ±5%	125V
C433	OF15102520	Film	1000pF ±5%	100V
C434	OF15102520	Film	1000pF ±5%	100V
		P400-RESISTORS (All Resistors are ±2% and ¼W)		
R401	GM21446420	46.4KΩ		
R402	GM21446420	46.4KΩ		
R403	GM21446420	46.4KΩ		
R404	GM21446420	46.4KΩ		
R405	GM214464G0	46.4Ω		
R406	GM214464G0	46.4Ω		
R407	GM21410000	100Ω		
R408	GM21410000	100Ω		
R409	GM21438310	3.83KΩ		
R410	GM21438310	3.83KΩ		
R411	GM21438310	3.83KΩ		
R412	GM21438310	3.83KΩ		
R413	GM21451100	511Ω		
R414	GM21451100	511Ω		
R415	GM21410000	100Ω		
R416	GM21410000	100Ω		
R417	GM21446410	4.64KΩ		
R418	GM21446410	4.64KΩ		
R419	GM21456220	56.2KΩ		
R420	GM21456220	56.2KΩ		

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REF. DESIG.	PART NO.	DESCRIPTION
R423	GM21413300	133Ω
R424	GM21413300	133Ω
R425	GM21421500	215Ω
R426	GM21421500	215Ω
R427	GM21417820	17.8KΩ
R428	GM21417820	17.8KΩ
R429	GM21412110	1.21KΩ
R430	GM21412110	1.21KΩ
⚠R431	GG05330140	33Ω ±5%
⚠R432	GG05330140	33Ω ±5%
⚠R433	GG05330140	33Ω ±5%
⚠R434	GG05330140	33Ω ±5%
		P400-SEMICONDUCTORS
D401	HD60007100	Diode, C.R. 10YD4.5C
D402	HD60007100	Diode, C.R. 10YD4.5C
D403	HD20011050	Diode 1S1555
D404	HD20011050	Diode 1S1555
D405	HD20011050	Diode 1S1555
D406	HD20011050	Diode 1S1555
Q401	HF203691B0	F.E.T. 2SK369(BL)
Q402	HF203691B0	F.E.T. 2SK369(BL)
Q403	HF203691B0	F.E.T. 2SK369(BL)
Q404	HF203691B0	F.E.T. 2SK369(BL)
Q405	HC10027090	IC 5534D
Q406	HC10027090	IC 5534D
		P400-MISCELLANEOUS
J401	YP01001080	Plug, 8P
J402	YP01001080	Plug, 8P
J403	YP01001090	Plug, 9P
J404	YP01001090	Plug, 9P
J405	YP01001040	Plug, 4P
J406	YP01001020	Plug, 4P
J407	YP01001020	Plug, 4P
J408	YP01001020	Plug, 4P
J409	YP01001980	Plug
J410	YJ07001570	Jack, 4P
J411	YJ07001540	Jack, 4P
L401	TI11606010	Input Transformer, CH-L
L402	TI11606010	Input Transformer, CH-R
L403	LY20240230	Relay
L404	LY20240230	Relay
L405	LY20240230	Relay
L406	LY20240230	Relay
S401	SS04030230	Slide Switch, Phono Select
S402	SS06060100	Slide Switch, Function
S403	SS06040050	Slide Switch, Tape Monitor
		P600-POWER AMP., CH-L CIRCUIT BOARD
P600	YK274H3610	P.W. Board, Power Amp; CH-L
	ZZ274H8610	P.W. Board Assembly
		P600-CAPACITORS
C601	OF55101520	Film 100pF ±5% 125V
C602	OF55391520	Film 390pF ±5% 125V
C603	OF56470520	Film 47pF ±10% 125V
C605	OF56050520	Film 5pF ±10% 125V
C606	OA10701650	Elect 100μF 16V
C607	OA22703550	Elect 220μF 35V
C608	OA22703550	Elect 220μF 35V
C609	EB56708010	Elect 560μF 80V
C610	EB56708010	Elect 560μF 80V
C613	OF15102520	Film 1000pF ±5% 100V

REF. DESIG.	PART NO.	DESCRIPTION
C614	OF15102520	Film 1000pF ±5% 100V
C615	OF15222520	Film 0.0022μF ±5% 100V
C616	OA47505010	Elect 4.7μF 50V
		P600-RESISTORS (All Resistors are ±2% and ¼W)
R601	GM21410010	1KΩ
R602	GM21426720	26.7KΩ
R603	GM214100G0	10Ω
R604	GM21410010	1KΩ
R605	GM21410020	10KΩ
R606	GM21410020	10KΩ
R607	GM21426720	26.7KΩ
R608	GM21446410	4.64KΩ
R610	GG05010140	1Ω ±5%
R611	GM21456200	562Ω
R612	GM21456200	562Ω
R614	GM21421520	21.5KΩ
R615	GM21412130	121KΩ
R616	GM21446420	46.4KΩ
R617	GG05272140	2.7KΩ ±5%
R618	GG05272140	2.7KΩ ±5%
R619	GM21490900	909Ω
R621	GG05472140	4.7KΩ ±5%
R622	RA02030260	20KΩ(B), Trimming
R623	GG05272140	2.7KΩ ±5%
R624	GG05272140	2.7KΩ ±5%
R625	GG05272140	2.7KΩ ±5%
R626	GG05272140	2.7KΩ ±5%
R627	GG05822140	8.2KΩ ±5%
R628	GG05822140	8.2KΩ ±5%
R629	GG05151140	150Ω ±5%
R630	GG05151140	150Ω ±5%
R631	GG05101140	100Ω ±5%
R632	GG05101140	100Ω ±5%
R633	GG05101140	100Ω ±5%
R634	GG05101140	100Ω ±5%
R637	GM21412130	121KΩ
R638	GM21421510	2.15KΩ
R640	GM21456200	562Ω
R641	GM21411010	1.1KΩ
R642	RA01030720	10KΩ(B), Trimming
R643	RA01030720	10KΩ(B), Trimming
R644	GM21410000	100Ω
R646	GA05151020	150Ω ±5% 2W
R647	GG05470140	47Ω ±5%
R648	GG05470140	47Ω ±5%
R649	GG05102140	1KΩ ±5%
R650	GG05102140	1KΩ ±5%
R651	GG05152140	1.5KΩ ±5%
R652	GG05152140	1.5KΩ ±5%
R655	GG05331140	330Ω ±5%
R656	GG05331140	330Ω ±5%
R657	GG05152140	1.5KΩ ±5%
R658	GG05152140	1.5KΩ ±5%
⚠R667	GG05100140	10Ω ±5%
⚠R668	GG05100140	10Ω ±5%
R671	BW10000080	0.18Ω×2 ±10% 5W
R672	BW10000080	0.18Ω×2 ±10% 5W
R673	BW10000080	0.18Ω×2 ±10% 5W
R675	GG05562120	5.6KΩ ±5% ½W
R676	GG05562120	5.6KΩ ±5% ½W
R677	GG05332120	3.3KΩ ±5% ½W
R678	GG05332120	3.3KΩ ±5% ½W

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REF. DESIG.	PART NO.	DESCRIPTION
		P600-SEMICONDUCTORS
D601	HD60007100	Diode, CR 10YD4.5C
D602	HD60007100	Diode, CR 10YD4.5C
D603	HD20011050	Diode 1S1555
D604	HD20011050	Diode 1S1555
D605	HD20011050	Diode 1S1555
D606	HD20011050	Diode 1S1555
D609	HD20011050	Diode 1S1555
D610	HD20011050	Diode 1S1555
D611	HD20011050	Diode 1S1555
D612	HD20011050	Diode 1S1555
D613	HD20014010	Diode 1SS81
D614	HD20014010	Diode 1SS81
D615	HD20014010	Diode 1SS81
D616	HD20014010	Diode 1SS81
D617	HD30028010	Zener HZ11A-3L
D618	HD30028010	Zener HZ11A-3L
D619	HD30031010	Zener HZ22L-2
D620	HD20011050	Diode 1S1555
Q601	HF203892A0	F.E.T. 2SK389(GR, BL)
Q602	HT333812A0	Transistor 2SC3381(GR, BL)
Q603	HT322402A0	Transistor 2SC2240(GR, BL)
Q604	HT322402A0	Transistor 2SC2240(GR, BL)
Q605	HT109702A0	Transistor 2SA970(GR, BL)
Q606	HT109702A0	Transistor 2SA970(GR, BL)
Q607	HT109702A0	Transistor 2SA970(GR, BL)
Q608	HT322402A0	Transistor 2SC2240(GR, BL)
Q609	HT109702A0	Transistor 2SA970(GR, BL)
Q610	HT322402A0	Transistor 2SC2240(GR, BL)
Q611	HT111451O0	Transistor 2SA1145(O)
Q612	HT327051O0	Transistor 2SC2705(O)
Q613	HT111451O0	Transistor 2SA1145(O)
Q614	HT327051O0	Transistor 2SC2705(O)
Q615	HT326823A0	Transistor 2SC2682(P, Q, R)
Q616	HT111423A0	Transistor 2SA1142(P, Q, R)
Q617	HT318152A0	Transistor 2SC1815(O, Y)
Q618	HT110152A0	Transistor 2SA1015(O, Y)
Q619	HT329092B0	Transistor 2SC2909(S, T)
Q620	HT112072B0	Transistor 2SA1207(S, T)
Q621	HT109702A0	Transistor 2SA970(GR, BL)
Q622	HT329092A0	Transistor 2SC2909(D, E)
Q623	HT322401B0	Transistor 2SC2240(BL)
Q624	HT109701B0	Transistor 2SA970(BL)
Q625	HT322402A0	Transistor 2SC2240(GR, BL)
Q626	HT109702A0	Transistor 2SA970(GR, BL)
Q628	HW10006320	Photo Unit PC-817
		P600-MISCELLANEOUS
J601	YP06001040	Plug, 3P
J602	YP06003540	Plug, 4P
J603	YP06003540	Plug, 4P
J604	YJ06003550	Jack, 6P
J605	YJ06003550	Jack, 6P
J606	YJ07001560	Jack, 6P
J607	YP06001040	Plug, 3P
		P600-POWER AMP, CH-R CIRCUIT BOARD
P700	YK274H3620	P.W. Board, Power Amp; CH-R
	ZZ274H8620	P.W. Board Assembly
		P700-CAPACITORS
C701	OF55101520	Film 100pF ±5% 125V
C702	OF55391520	Film 390pF ±5% 125V
C703	OF56470520	Film 47pF ±10% 125V
C705	OF56050520	Film 5pF ±10% 125V
C706	OA10701650	Elect 100μF 16V

REF. DESIG.	PART NO.	DESCRIPTION
C707	OA22703550	Elect 220μF 35V
C708	OA22703550	Elect 220μF 35V
C709	EB56708010	Elect 560μF 80V
C710	EB56708010	Elect 560μF 80V
C713	OF15102520	Film 1000pF ±5% 100V
C714	OF15102520	Film 1000pF ±5% 100V
C715	OF15222520	Film 0.0022μF ±5% 100V
C716	OA47505010	Elect 4.7μF 50V
		P700-RESISTORS (All Resistors are ±2% and ¼W)
R701	GM21410010	1KΩ
R702	GM21426720	26.7KΩ
R703	GM214100G0	10Ω
R704	GM21410010	1KΩ
R705	GM21410020	10KΩ
R706	GM21410020	10KΩ
R707	GM21426720	26.7KΩ
R708	GM21446410	4.64KΩ
R710	GG05010140	1Ω ±5%
R711	GM21456200	562Ω
R712	GM21456200	562Ω
R714	GM21421520	21.5KΩ
R715	GM21412130	121KΩ
R716	GM21446420	46.4KΩ
R717	GG05272140	2.7KΩ ±5%
R718	GG05272140	2.7KΩ ±5%
R719	GM21490900	909Ω
R721	GG05472140	4.7KΩ ±5%
R722	RA02030260	20KΩ(B), Trimming
R723	GG05272140	2.7KΩ ±5%
R724	GG05272140	2.7KΩ ±5%
R725	GG05272140	2.7KΩ ±5%
R726	GG05272140	2.7KΩ ±5%
R727	GG05822140	8.2KΩ ±5%
R728	GG05822140	8.2KΩ ±5%
R729	GG05151140	150Ω ±5%
R730	GG05151140	150Ω ±5%
R731	GG05101140	100Ω ±5%
R732	GG05101140	100Ω ±5%
R733	GG05101140	100Ω ±5%
R734	GG05101140	100Ω ±5%
R737	GM21412130	121KΩ
R738	GM21421510	2.15KΩ
R740	GM21456200	562Ω
R741	GM21411010	1.1KΩ
R742	RA01030720	10KΩ(B), Trimming
R743	RA01030720	10KΩ(B), Trimming
R744	GM21410000	100Ω
R746	GA05151020	150Ω ±5% 2W
R747	GG05470140	47Ω ±5%
R748	GG05470140	47Ω ±5%
R749	GG05102140	1KΩ ±5%
R750	GG05102140	1KΩ ±5%
R751	GG05152140	1.5KΩ ±5%
R752	GG05152140	1.5KΩ ±5%
R755	GG05331140	330Ω ±5%
R756	GG05331140	330Ω ±5%
R757	GG05152140	1.5KΩ ±5%
R758	GG05152140	1.5KΩ ±5%
⚠R767	GG05100140	10Ω ±5%

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REF. DESIG.	PART NO.	DESCRIPTION
⚠R768	GG05100140	10Ω ±5%
R771	8W10000080	0.18Ω×2 ±10% 5W
R772	8W10000080	0.18Ω×2 ±10% 5W
R773	8W10000080	0.18Ω×2 ±10% 5W
R775	GG05562120	5.6KΩ ±5% ½W
R776	GG05562120	5.6KΩ ±5% ½W
R777	GG05332120	3.3KΩ ±5% ½W
R778	GG05332120	3.3KΩ ±5% ½W
		P700-SEMICONDUCTORS
D701	HD60007100	Diode, CR 10YD4.5C
D702	HD60007100	Diode, CR 10YD4.5C
D703	HD20011050	Diode 1S1555
D704	HD20011050	Diode 1S1555
D705	HD20011050	Diode 1S1555
D706	HD20011050	Diode 1S1555
D709	HD20011050	Diode 1S1555
D710	HD20011050	Diode 1S1555
D711	HD20011050	Diode 1S1555
D712	HD20011050	Diode 1S1555
D713	HD20014010	Diode 1SS81
D714	HD20014010	Diode 1SS81
D715	HD20014010	Diode 1SS81
D716	HD20014010	Diode 1SS81
D717	HD30028010	Zener HZ11A-3L
D718	HD30028010	Zener HZ11A-3L
D719	HD30031010	Zener HZ22L-2
D720	HD20011050	Diode 1S1555
Q701	HF203892A0	F.E.T. 2SK389(GR, BL)
Q702	HT333812A0	Transistor 2SC3381(GR, BL)
Q703	HT322402A0	Transistor 2SC2240(GR, BL)
Q704	HT322402A0	Transistor 2SC2240(GR, BL)
Q705	HT109702A0	Transistor 2SA970(GR, BL)
Q706	HT109702A0	Transistor 2SA970(GR, BL)
Q707	HT109702A0	Transistor 2SA970(GR, BL)
Q708	HT322402A0	Transistor 2SC2240(GR, BL)
Q709	HT109702A0	Transistor 2SA970(GR, BL)
Q710	HT322402A0	Transistor 2SC2240(GR, BL)
Q711	HT111451O0	Transistor 2SA1145(O)
Q712	HT327051O0	Transistor 2SC2705(O)
Q713	HT111451O0	Transistor 2SA1145(O)
Q714	HT327051O0	Transistor 2SC2705(O)
Q715	HT326823A0	Transistor 2SC2682(P, Q, R)
Q716	HT111423A0	Transistor 2SA1142(P, Q, R)
Q717	HT318152A0	Transistor 2SC1815(O, Y)
Q718	HT110152A0	Transistor 2SA1015(O, Y)
Q719	HT329092B0	Transistor 2SC2909(S, T)
Q720	HT112072B0	Transistor 2SA1207(S, T)
Q721	HT109702A0	Transistor 2SA970(GR, BL)
Q722	HT329092A0	Transistor 2SC2909(D, E)
Q723	HT322401B0	Transistor 2SC2240(BL)
Q724	HT109701B0	Transistor 2SA970(BL)
Q725	HT322402A0	Transistor 2SC2240(GR, BL)
Q726	HT109702A0	Transistor 2SA970(GR, BL)
Q728	HW10006320	Photo Unit PC-817
		P700-MISCELLANEOUS
J701	YP06001040	Plug, 3P
J702	YP06003540	Plug, 4P
J703	YP06003540	Plug, 4P
J704	YJ06003550	Jack, 6P
J705	YJ06003550	Jack, 6P
J706	YJ07001560	Jack, 6P
J707	YP06001040	Plug, 3P

REF. DESIG.	PART NO.	DESCRIPTION
		PE01-TONE, CH-L CIRCUIT BOARD
PE01	YK274H2850	P.W. Board, Tone; CH-L
	ZZ274H2850	P.W. Board Assembly
		PE01-CAPACITORS
CE01	EA47503560	Elect 4.7μF 35V
CE03	EA47503560	Elect 4.7μF 35V
CE05	OF55101520	Film 100pF ±5% 125V
CE07	OF55101520	Film 100pF ±5% 125V
CE09	OF15103520	Film 0.01μF ±5% 100V
CE11	OF15103520	Film 0.01μF ±5% 100V
CE13	OF15102520	Film 100pF ±5% 100V
CE15	DF56470530	Film 47pF ±10% 125V
CE17	OA22601610	Elect 22μF 16V
CE19	OA22601610	Elect 22μF 16V
CE21	OF15182520	Film 1800pF ±5% 100V
CE23	DF55101530	Film 100pF ±5% 125V
CE25	OA22702510	Elect 220μF 25V
CE27	OA22702510	Elect 220μF 25V
		PE01-RESISTORS (All Resistors are ±2% and ¼W)
RE01	GM21410030	100KΩ
RE03	GM21410020	10KΩ
RE05	GM21446410	4.64KΩ
RE07	GM21410020	10KΩ
RE09	GM21438320	38.3KΩ
RE11	GM21438320	38.3KΩ
RE13	GM21410020	10KΩ
RE15	GM21410020	10KΩ
RE17	GM21410020	10KΩ
RE21	GM21421500	215Ω
RE23	GM21410030	100KΩ
RE25	RK01040280	100KΩ(B), Variable; Bass
RE27	RK01040280	100KΩ(B), Variable; Treble
⚠RE29	GG05152140	1.5KΩ ±5%
⚠RE31	GG05152140	1.5KΩ ±5%
		PE01-SEMICONDUCTOR
QE01	HC10021090	IC 4560DD
		PE01-MISCELLANEOUS
JE01	YP01001030	Plug, 3P
JE03	YP10001980	Plug, 2P
		PE02-TONE, CH-R CIRCUIT BOARD
PE02	YK274H2860	P.W. Board, Tone; CH-R
	ZZ274H8860	P.W. Board Assembly
		PE02-CAPACITORS
CE02	EA47503560	Elect 4.7μF 35V
CE04	EA47503560	Elect 4.7μF 35V
CE06	OF55101520	Film 100pF ±5% 125V
CE08	OF55101520	Film 100pF ±5% 125V
CE10	OF15103520	Film 0.01μF ±5% 100V
CE12	OF15103520	Film 0.01μF ±5% 100V
CE14	OF15102520	Film 100pF ±5% 100V
CE16	DF56470530	Film 47pF ±10% 125V
CE18	OA22601610	Elect 22μF 16V
CE20	OA22601610	Elect 22μF 16V

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REF. DESIG.	PART NO.	DESCRIPTION
CE22	OF15182520	Film 1800pF ±5% 100V
CE24	DF55101530	Film 100pF ±5% 125V
CE26	OA22702510	Elect 220μF 25V
CE28	OA22702510	Elect 220μF 25V
		PE02-RESISTORS
		(All Resistors are ±2% and ¼W)
RE02	GM21410030	100KΩ
RE04	GM21410020	10KΩ
RE06	GM21446410	4.64KΩ
RE08	GM21410020	10KΩ
RE10	GM21438320	38.3KΩ
RE12	GM21438320	38.3KΩ
RE14	GM21410020	10KΩ
RE16	GM21410020	10KΩ
RE18	GM21410020	10KΩ
RE22	GM21421500	215Ω
RE24	GM21410030	100KΩ
RE26	RK01040280	100KΩ(B), Variable; Bass
RE28	RK01040280	100KΩ(B), Variable; Treble
⚠ RE30	GG05152140	1.5KΩ ±5%
⚠ RE32	GG05152140	1.5KΩ ±5%
		PE02-SEMICONDUCTOR
QE02	HC10021090	IC 4560DD
		PE02-MISCELLANEOUS
JE02	YP01001030	Plug, 3P
JE04	YP10001980	Plug, 2P
		PG00-FLAT AMP/SUPPLY CIRCUIT BOARD
PG00	YK274H2830	P.W. Board, Flat Amp/Supply
	ZZ274H8830	P.W. Board Assembly
		PG00-CAPACITORS
CG01	OF55101520	Film 100pF ±5% 125V
CG02	OF55101520	Film 100pF ±5% 125V
CG03	OF55182520	Film 1800pF ±5% 125V
CG04	OF55182520	Film 1800pF ±5% 125V
CG05	OF56470520	Film 47pF ±10% 125V
CG06	OF56470520	Film 47pF ±10% 125V
CG07	OF56220520	Film 22pF ±10% 125V
CG08	OF56220520	Film 22pF ±10% 125V
CG11	OF15332520	Film 3300pF ±5% 100V
CG12	OF15332520	Film 3300pF ±5% 100V
CG13	OA22702510	Elect 220μF 25V
CG14	OA22702510	Elect 220μF 25V
CG15	OA10800610	Elect 1000μF 6.3V
CG16	OA10800610	Elect 1000μF 6.3V
CG17	OA47602550	Elect 47μF 25V
CG18	OA47602550	Elect 47μF 25V
CG19	OA47602550	Elect 47μF 25V
CG20	OA47602550	Elect 47μF 25V
CG21	OA22702550	Elect 220μF 25V
CG22	OA22702550	Elect 220μF 25V
CG23	OA22702550	Elect 220μF 25V
CG24	OA22702550	Elect 220μF 25V
CG81	EB22803560	Elect 2200μF 35V
CG82	EB22803560	Elect 2200μF 35V
CG83	OA10603510	Elect 10μF 35V
CG84	OA10603510	Elect 10μF 35V
CG85	OA47601010	Elect 47μF 10V
CG86	OA47601010	Elect 47μF 10V
CG87	OA22702550	Elect 220μF 25V
CG88	OA22702550	Elect 220μF 25V
CG89	EQ47510030	Elect 4.7μF 100V

REF. DESIG.	PART NO.	DESCRIPTION
		PG00-RESISTORS
		(All Resistors are ±2% and ¼W)
RG01	GM214464G0	46.4Ω
RG02	GM214464G0	46.4Ω
RG03	GM21438310	3.83KΩ
RG04	GM21438310	3.83KΩ
RG05	GM21438310	3.83KΩ
RG06	GM21438310	3.83KΩ
RG07	GM21421510	2.15KΩ
RG08	GM21421510	2.15KΩ
RG11	GM214681G0	68.1Ω
RG12	GM214681G0	68.1Ω
RG13	GM21475000	750Ω
RG14	GM21475000	750Ω
RG17	GM21421500	215Ω
RG18	GM21421500	215Ω
RG19	GM21410030	100KΩ
RG20	GM21410030	100KΩ
RG21	GM21412110	1.21KΩ
RG22	GM21412110	1.21KΩ
⚠ RG23	GG05330140	33Ω ±5%
⚠ RG24	GG05330140	33Ω ±5%
⚠ RG25	GG05330140	33Ω ±5%
⚠ RG26	GG05330140	33Ω ±5%
RG81	GM21446420	46.4KΩ
RG82	GM21446420	46.4KΩ
RG83	GM21414710	1.47KΩ
RG84	GM21414710	1.47KΩ
RG85	GM21451100	511Ω
RG86	GM21451100	511Ω
RG87	GM21427410	2.74KΩ
RG88	GM21427410	2.74KΩ
RG89	GM21451100	511Ω
RG90	GM21451100	511Ω
RG91	GM21427410	2.74KΩ
RG92	GM21427410	2.74KΩ
RG93	GM21436510	3.65KΩ
RG94	GM21436510	3.65KΩ
RG97	GA05560010	56Ω
		PG00-SEMICONDUCTORS
DG01	HD60007100	Diode, CR 10YD4.5C
DG02	HD60007100	Diode, CR 10YD4.5C
DG81	HD30021010	Zener HZ6A-3L
DG82	HD30021010	Zener HZ6A-3L
⚠ DG83	HD20028080	Diode EP01Z
⚠ DG84	HD20028080	Diode EP01Z
⚠ DG85	HD20028080	Diode EP01Z
⚠ DG86	HD20028080	Diode EP01Z
QG01	HF203691B0	F.E.T. 2SK369(BL)
QG02	HF203691B0	F.E.T. 2SK369(BL)
QG03	HF203691B0	F.E.T. 2SK369(BL)
QG04	HF203691B0	F.E.T. 2SK369(BL)
QG05	HC10027090	IC 5534D
QG06	HC10027090	IC 5534D
QG81	HF202461C0	F.E.T. 2SK246(GR)
QG82	HF202461C0	F.E.T. 2SK246(GR)
QG83	HT318151B0	Transistor 2SC1815(Y)
QG84	HT110151B0	Transistor 2SA1015(Y)
QG85	HT318151B0	Transistor 2SC1815(Y)
QG86	HT110151B0	Transistor 2SA1015(Y)
⚠ QG87	HT334222A0	Transistor 2SC3422(O, Y)
⚠ QG88	HT113592A0	Transistor 2SA1359(O, Y)

REF. DESIG.	PART NO.	DESCRIPTION
		PG00-MISCELLANEOUS
JG01	YP01001040	Plug, 4P
JG02	YP01001040	Plug, 4P
JG05	YP06001040	Plug, 3P
		PK00-SUB/MONO/BALANCE/ CD DIRECT CIRCUIT BOARD
PK00	YK274H2810	P.W. Board, Sub/Mono/Balance/CD Direct
	ZZ274H8810	P.W. Board Assembly
		PK00-CAPACITORS
CK01	OF15394010	Film 0.39μF ±5%
CK02	OF15394010	Film 0.39μF ±5%
		PK00-RESISTORS
RK01	GM21410030	100KΩ ±2% ¼W
RK02	GM21410030	100KΩ ±2% ¼W
RK03	GM21421510	2.15KΩ ±2% ¼W
RK04	GM21421510	2.15KΩ ±2% ¼W
RK05	RM01040890	100KΩ, Variable; Balance
		PK00-MISCELLANEOUS
JK01	YJ07001530	Jack, 3P
SK01	SP04020470	Push Switch, Subsonic/Mono
SK02	SP04010500	Push Switch, CD Direct
WK01	YB00280310	Connective Cord, 2P
WK02	YB00240100	Connective Cord, 2P
WK03	YB00230240	Connective Cord, 4P
WK04	YB00150510	Connective Cord, 4P
		PL00-POWER TRANSISTOR CIRCUIT BOARD
PL00	YF274H0010	P.W. Board, Power Transistor
	ZZ274H0010	P.W. Board Assembly
		PL00-CAPACITORS
⚠CL01	DF16105540	Film 1μF ±10% 100V
⚠CL02	DF16105540	Film 1μF ±10% 100V
		PL00-RESISTORS
		(All Resistors are ±5% and ¼W)
⚠RL01	NH05221140	220Ω, Fusible
⚠RL02	NH05221140	220Ω, Fusible
⚠RL03	NH05221140	220Ω, Fusible
⚠RL04	NH05101140	100Ω, Fusible
⚠RL05	NH05101140	100Ω, Fusible
⚠RL06	NH05101140	100Ω, Fusible
⚠RL07	GG05068140	6.8Ω
⚠RL08	GG05068140	6.8Ω
		PL00-SEMICONDUCTORS
⚠DL01	HD20027100	Diode 30DF-2
⚠DL02	HD20027100	Diode 30DF-2
⚠QL01	HF204051O0	F.E.T. 2SK405(O)
⚠QL02	HF204051O0	F.E.T. 2SK405(O)
⚠QL03	HF204051O0	F.E.T. 2SK405(O)
⚠QL04	HF101151O0	F.E.T. 2SJ115(O)
⚠QL05	HF101151O0	F.E.T. 2SJ115(O)
⚠QL06	HF101151O0	F.E.T. 2SJ115(O)
⚠QL07	HT332802A0	Transistor 2SC3280(R, O)
⚠QL08	HT113012A0	Transistor 2SA1301(R, O)
⚠QL09	HT329832A0	Transistor 2SC2983(O, Y)
⚠QL10	HT112252A0	Transistor 2SA1225(O, Y)
⚠QL11	HT334191Y0	Transistor 2SC3419(Y)

REF. DESIG.	PART NO.	DESCRIPTION
		PL01-MISCELLANEOUS
JL01	YP06003560	Plug, 7P
JL02	YP06003540	Plug, 4P
JL03	YP06003540	Plug, 4P
JL04	YP06003550	Plug, 6P
JL05	YP06003550	Plug, 6P
		PN00-COMPARATOR/PROTECTOR/ SUPPLY CIRCUIT BOARD
PN00	YK274H3630	P.W. Board, Comparator/Protector/ Supply
	ZZ274H8630	P.W. Board Assembly
		PN00-CAPACITORS
CN01	OA47505010	Elect 4.7μF 50V
CN02	OA47601010	Elect 47μF 10V
CN03	OA47601010	Elect 47μF 10V
CN04	OA47601010	Elect 47μF 10V
CN05	OF15103520	Film 0.01μF ±5% 100V
CN21	DF56470530	Film 47pF ±10% 125V
CN22	OF15471520	Film 470pF ±5% 100V
CN23	OA10601610	Elect 10μF 16V
CN24	OF15103520	Film 0.01μF ±5% 100V
CN25	OF15103520	Film 0.01μF ±5% 100V
CN81	OA33703510	Elect 330μF 35V
CN82	OA33703510	Elect 330μF 35V
CN83	OA47702510	Elect 470μF 25V
CN84	OA33703510	Elect 330μF 35V
CN85 ≀ CN90	OA10601610	Elect 10μF 16V
CN91	EB56708010	Elect 560μF 80V
CN92	EB56708010	Elect 560μF 80V
		PN00-RESISTORS
		(All Resistors are ±2% and ¼W)
RN04	GM21446420	46.4KΩ
RN06	GM21421520	21.5KΩ
⚠RN11	NH05220140	22Ω ±5%, Fusible
RN21	GM21456210	5.62KΩ
RN22	GM21456210	5.62KΩ
RN23	GM21456210	5.62KΩ
RN24	GM21456210	5.62KΩ
RN25	GM21446400	464Ω
RN26	GM21446400	464Ω
RN27	GM21446400	464Ω
RN28	GM21446400	464Ω
RN29	GM21446410	4.64KΩ
RN30	GM21446410	4.64KΩ
RN31	GM21446410	4.64KΩ
RN32	GM21446410	4.64KΩ
RN33	GM214162G0	16.2Ω
RN34	GM214162G0	16.2Ω
RN35	GM214162G0	16.2Ω
RN36	GM214162G0	16.2Ω
RN37	GM21414720	14.7KΩ
RN38	GM21414720	14.7KΩ
RN39	RA01020460	1KΩ(B), Trimming
RN40	RA01020460	1KΩ(B), Trimming
RN41	RA01020460	1KΩ(B), Trimming
RN42	RA01020460	1KΩ(B), Trimming
RN43	GM21421510	2.15KΩ
RN44	GM21414720	14.7KΩ
RN47	GG05222140	2.2KΩ
RN48	GG05222140	2.2KΩ
⚠RN81	GA05022010	2.2Ω ±5% 1W
⚠RN82	GA05180010	18Ω ±5% 1W

REF. DESIG.	PART NO.	DESCRIPTION
		PN00-SEMICONDUCTORS
DN01	HD20016210	Diode 1SR35-200A
DN21	HD20011050	Diode 1S1555
DN81	HD30021010	Zener HZ6A-3L
DN82	HD30021010	Zener HZ6A-3L
DN83	HD30021010	Zener HZ6A-3L
DN84	HD30021010	Zener HZ6A-3L
⚠ DN85	HE20002030	Diode DBB10B
⚠ DN91	HD20028080	Diode EP01Z
⚠ DN92	HD20028080	Diode EP01Z
⚠ DN93	HD20028080	Diode EP01Z
⚠ DN94	HD20028080	Diode EP01Z
QN01	HC10042050	IC TA731PA
QN21	HC10009090	IC NJM2901
QN22	HC10009090	IC NJM2901
QN23	HC712301A0	IC HD74LS123
QN24	HT318151B0	Transistor 2SC1815(Y)
⚠ QN81	HT334222A0	Transistor 2SC3422(O, Y)
⚠ QN82	HT113592A0	Transistor 2SA1359(O, Y)
⚠ QN83	HF202461D0	F.E.T. 2SK246(BL)
⚠ QN84	HF202461D0	F.E.T. 2SK246(BL)
		PN00-MISCELLANEOUS
JN01	YP01001090	Plug, 9P
JN02	YP01001980	Plug, 2P
JN03	YJ07001530	Jack, 3P
JN06	YP10001980	Plug, 2P
JN07	YP06000580	Plug, 5P
JN08	YP06000590	Plug, 7P
WN04	YU06180260	Jumper Lead, 6P
WN05	YU06180260	Jumper Lead, 6P
		PN50-SOFT START CIRCUIT BOARD
PN50	YK274H3660	P.W. Board, Soft Start
	ZZ274H8660	P.W. Board Assembly
⚠ CN51	OA33610010	Elect Cap. 33μF 100V
⚠ RN51	GR05047080	Resistor 4.7Ω ±5% 7W
⚠ RN52	GA05472020	Resistor 4.7KΩ ±5% 2W
⚠ DN51	HE20004030	Diode DBB10C
⚠ FN51	FS11000600	Fuse 10A 250V
JN56	YJ08000170	Jack, Fuse Holder
JN57	YJ08000170	Jack, Fuse Holder
⚠ LN51	LY10480030	Relay
		PQ00-MAIN VOLUME CIRCUIT BOARD
PQ00	YK274H2820	P.W. Board, Main Volume
	ZZ274H8820	P.W. Board Assembly
RQ01	RM05031210	Variable Resistor 50KΩ
WQ01	YB00430020	Connective Cord, 4P
		PR00-SPEAKER/MUTING RELAY CIRCUIT BOARD
PR00	YK274H3650	P.W. Board, Speaker/Muting Relay
		PR00-CAPACITORS
CR01	DF16104510	Film 0.1μF ±10% 200V
CR02	DF16104510	Film 0.1μF ±10% 200V

REF. DESIG.	PART NO.	DESCRIPTION
		PR00-RESISTORS
RR01	GA05100030	10Ω ±5% 3W
RR02	GA05100030	10Ω ±5% 3W
RR03	GG05022120	2.2Ω ±5% ½W
RR04	GG05022120	2.2Ω ±5% ½W
RR05	GA05331020	330Ω ±5% 2W
RR06	GA05331020	330Ω ±5% 2W
		PR00-SEMICONDUCTORS
DR01	HD20011050	Diode 1S1555
DR02	HD20011050	Diode 1S1555
		PR00-MISCELLANEOUS
JR01	YP06001040	Plug, 3P
JR02	YP06001040	Plug, 3P
JR03	YB00060110	Connective Cord, 1P
JR04	YB00170140	Connective Cord, 1P
JR05	YB00170150	Connective Cord, 1P
JR06	YB00060100	Connective Cord, 1P
JR07	YB00060090	Connective Cord, 1P
JR08	YB00150490	Connective Cord, 1P
JR09	YB00150490	Connective Cord, 1P
JR10	YB00060090	Connective Cord, 1P
JR11	YJ07001550	Jack, 5P
LR01	LY20240150	Relay, Speaker
LR02	LY20240150	Relay, Speaker
LR03	LJ31115080	Coil, Output
LR04	LJ31115080	Coil, Output
WN01	YB00220190	Connective Cord, 9P
		PR50-PHONE/SPEAKER SELECT CIRCUIT BOARD
PR50	YK274H3640	P.W. Board, Phone/Speaker Select
	ZZ274H8640	P.W. Board Assembly
RR51	GA05102010	Resistor 1KΩ ±5% 1W
RR52	GA05102010	Resistor 1KΩ ±5% 1W
JR51	YJ01002080	Jack, Phone
SR51	SP02020860	Push Switch, Speaker Select
		PT00-TONE/TAPE 1, 2/VCR/ MUTING CIRCUIT BOARD
PT00	YK274H2840	P.W. Board, Tone/Tape 1, 2/VCR/Muting
		PT00-RESISTORS
RT01	GM21421510	2.15KΩ ±2% ¼W
RT02	GM21421510	2.15KΩ ±2% ¼W
RT03	GM21421500	215Ω ±2% ¼W
RT04	GM21421500	215Ω ±2% ¼W
RT05	GA05102010	1KΩ ±5% 1W
RT06	GA05102010	1KΩ ±5% 1W
RT07	GA05102010	1KΩ ±5% 1W
		PT00-MISCELLANEOUS
JT01	YP06001040	Plug, 3P
JT02	YJ07001550	Jack, 5P
ST01	SP04010480	Push Switch, Muting
ST02	SP02040330	Push Switch, Tape 1, 2/VCR
ST03	SP04010480	Push Switch, Tone Defeat
WT01	YB00160230	Connective Cord, 4P
WT02	YB00220210	Connective Cord, 3P
WT03	YB00300920	Connective Cord, 3P
WT04	YB00740010	Connective Cord, 8P

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REF. DESIG.	PART NO.	DESCRIPTION
		PV00-PHONO/CD/TUNER/AUX 1, 2 CIRCUIT BOARD
PV00	YK274H1320	P.W. Board, Phono/CD/Tuner/AUX 1, 2
	ZZ274H8320	P.W. Board Assembly
		PV00-CAPACITORS
CV01 ~ CV12	DA17103010	Ceramic 0.01μF ±20% 25V
		PV00-SEMICONDUCTORS
DV01	HD20011050	Diode 1S1555
		PV00-MISCELLANEOUS
JV01	YT02040570	Terminal, Phono/CD
JV02	YT02020470	Terminal, Tuner
JV03	YT02040580	Terminal, AUX 1, AUX 2
JV04	YT02040580	Terminal, Pri-OUT/Main-IN
JV05	YP06002010	Plug, 4P
LV01	LY20240230	Relay, Pri-OUT
WV01	YB00400510	Connective Cord, 8P
WV02	YB00480060	Connective Cord, 8P
WV05	YB00140200	Connective Cord, 4P
WV06	YB00670010	Connective Cord, 4P
WV07	YB00180240	Connective Cord, 2P
		PW00-TAPE PLAY/REC/VCR CIRCUIT BOARD
PW00	YK274H1330	P.W. Board, Tape Play/Rec/VCR
	ZZ274H8330	P.W. Board Assembly
CW01 ~ CW06	DA17103010	Ceramic Cap. 0.01μF ±20% 25V
JW01	YT02040580	Terminal, Tape 1
JW02	YT02040580	Terminal, Tape 2
JW03	YT02040580	Terminal, HIFI VCR
WW01	YB00340050	Connective Cord, 9P
WW02	YB00280300	Connective Cord, 9P

	PY00-FUNCTION IND. CIRCUIT BOARD
PY00	YK274H2870 — P.W. Board, Function IND.
	ZZ274H8870 — P.W. Board Assembly
RY01	GA05102010 — Resistor 1KΩ ±5% 1W
RY02	GA05102010 — Resistor 1KΩ ±5% 1W
DY01	HI10048320 — L.E.D. GL-3HD7, CD
DY02	HI10048320 — L.E.D. GL-3HD7, Phono
DY03	HI10048320 — L.E.D. GL-3HD7, Tuner
DY04	HI10048320 — L.E.D. GL-3HD7, AUX 1
DY05	HI10048320 — L.E.D. GL-3HD7, AUX 2
DY06	HI10037320 — L.E.D. LT-9200N, CD Direct
WY01	YU07220260 — Jumper Lead, 7P
WY02	YU03180260 — Jumper Lead, 3P
	PZ00-TAPE/VCR/MUTING IND. CIRCUIT BOARD
PZ00	YK274H2880 — P.W. Board, Tape/VCR/Muting IND.
	ZZ274H8880 — P.W. Board Assembly
DZ01	HI10048320 — L.E.D. GL-3HD7, Tape 1
DZ02	HI10048320 — L.E.D. GL-3HD7, Tape 2
DZ03	HI10048320 — L.E.D. GL-3HD7, VCR
DZ04	HI10037320 — L.E.D. LT-9200N, Muting
WZ01	YU04260260 — Jumper Lead, 4P
WZ02	YU05100260 — Jumper Lead, 5P

(W01-99)	Assembly and Wiring
(T01-99)	Adjustment
(X01-00)	Correction

NOTE ON SAFETY:
Symbol ⚠ Fire or electrical shock hazard. Only original parts should be used to replace any part marked with symbol ⚠. Any other component substitution (other than original type), may increase risk of fire or electrical shock hazard.

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9. TECHNICAL SPECIFICATIONS

AUDIO SECTION

IHF Dynamic Power
- **4 OHMS** ..... **310 W**
- **8 OHMS** ..... **180 W**

POWER OUTPUT PER CHANNEL
- **DIN 4 OHMS AT 1 kHz** ..... **240 W**
- **RMS 4 OHMS FTC** ..... **220 W**
- **DIN 8 OHMS AT 1 kHz** ..... **150 W**
- **RMS 8 OHMS FTC** ..... **140 W**

TOTAL HARMONIC DISTORTION AT RMS 8 OHMS **0.01%**
I.M. DISTORTION **0.01%**
DAMPING FACTOR 8 OHMS (1 kHz) **200**

MAIN IN Sensitivity ..... 1.5 V
MAIN IN Impedance ..... 27 k ohms
Frequency Response (MAIN IN) ..... 10 Hz ~ 100 kHz
Signal to Noise Ratio, MAIN IN (A weighted) at 1 W Output ..... 97 dB

MM CARTRIDGE INPUT

Frequency Response (IEC RIAA) ..... ±0.2 dB
Signal-to-Noise Ratio (A weighted) ..... 92 dB
Input Impedance ..... 47 k ohms
Input Capacitance ..... 100 pF
Input Sensitivity ..... 2.5 mV
Equivalent Input Noise (A weighted) ..... 0.07 μV
Dynamic Range ..... 130 dB

MC CARTRIDGE INPUT

Input Sensitivity ..... 125 (Low MC)/350 (High MC) μV
Input Impedance ..... 3 (Low MC)/40 (High MC) ohms

CD, AUX. INPUT

Input Impedance ..... 25 k ohms
Input Sensitivity ..... 150 mV
Frequency Response ..... 10 Hz ~ 70 kHz
Signal to Noise Ratio (A weighted) ..... 98 dB

OUTPUT VOLTAGE

Tape Out [PHONO (MM) 7.75 mV 1 kHz Input] ..... 465 mV
Preamplifier Output [AUX, 150 mV 1 kHz Input] ..... 1.5 V

OUTPUT IMPEDANCE

Tape Out (at Phono Position) ..... 220 ohms
Preamplifier Output ..... 220 ohms

GENERAL

Power Requirements (E Version) ..... 110/120/220/240 V AC, 50/60 Hz
Power Consumption at Rated Output, both Channels Operating at 8 ohms load ..... 490 W
Dimensions
- Panel Width ..... 465 mm
- Panel Height ..... 146 mm
- Depth ..... 410 mm

Weight
- Unit Alone ..... 23 kg

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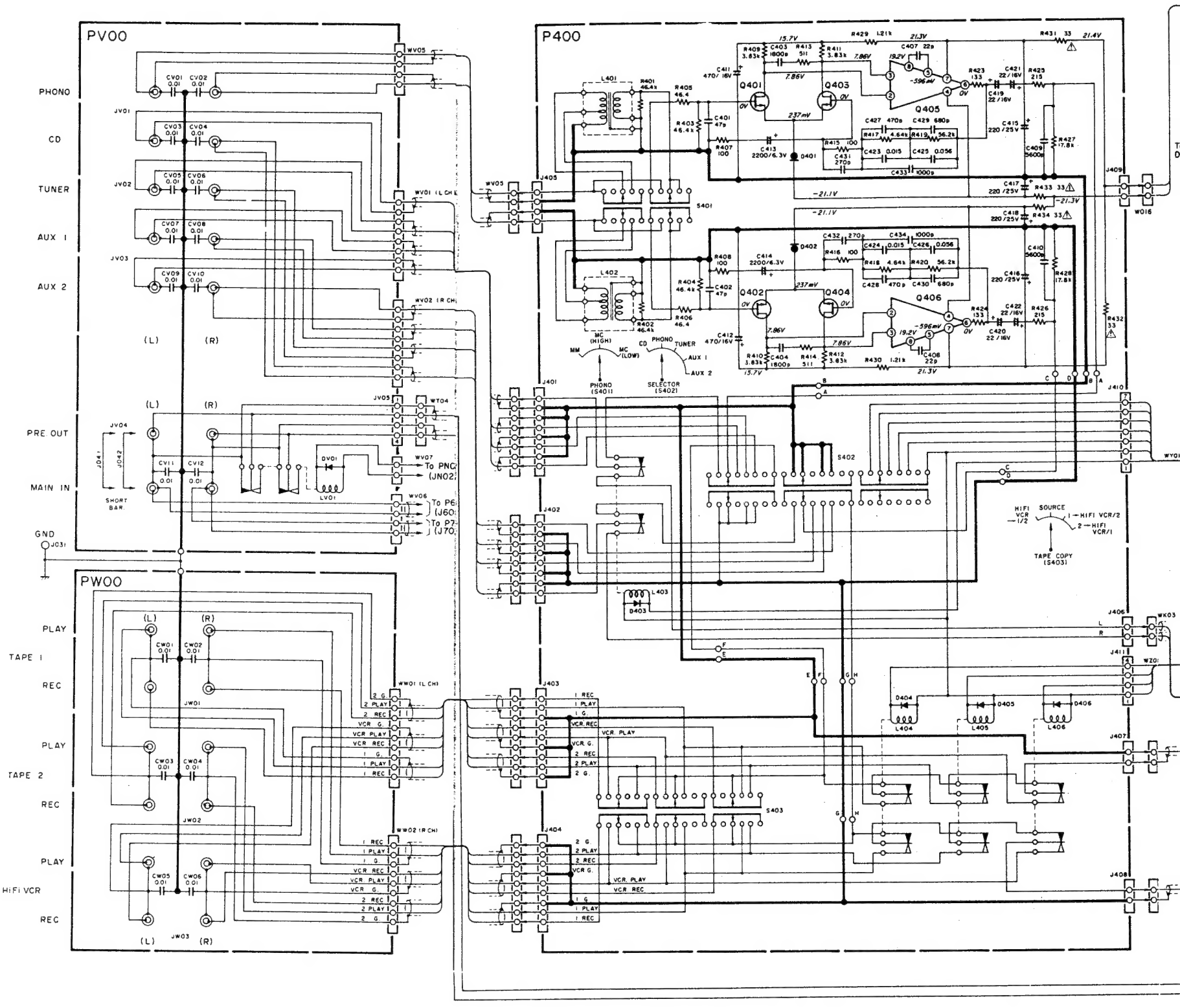
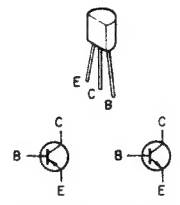
10 SCHEMATIC DIAGRAM



QG01 ~ QG04 HF20369180 2SK369	QG83, QG85 HT31815180 2SC1815	QG88 HTI13592A0 2SA1359
QG05, QG06, Q405, Q406 HCI0027090 5534D	QG84, QG86 HTI1015180 2SA1015	QE01, QE02 HCI0021090 4560DD
QG81, QG82 HF20246IC0 2SK246	QG87 HT334222A0 2SC3422	Q401 ~ Q404 HF20369180 2SK369(BL)

DY01 ~ DY05 DZ01 ~ DZ03 HI10048320 GL-3HD7	D401, D402 HD60007100 10YD4.5C	DG81, DG82 HD30021010 HZ6A-3L
DY06, DZ04 HI10037320 LT-9200N	D403 ~ D406 HD20011050 1S1555	DG83 ~ DG86 HD20028080 EP01Z
DV01 HD20011050 1S1555	DG01, DG02 HD60007100 10YD4.5C	



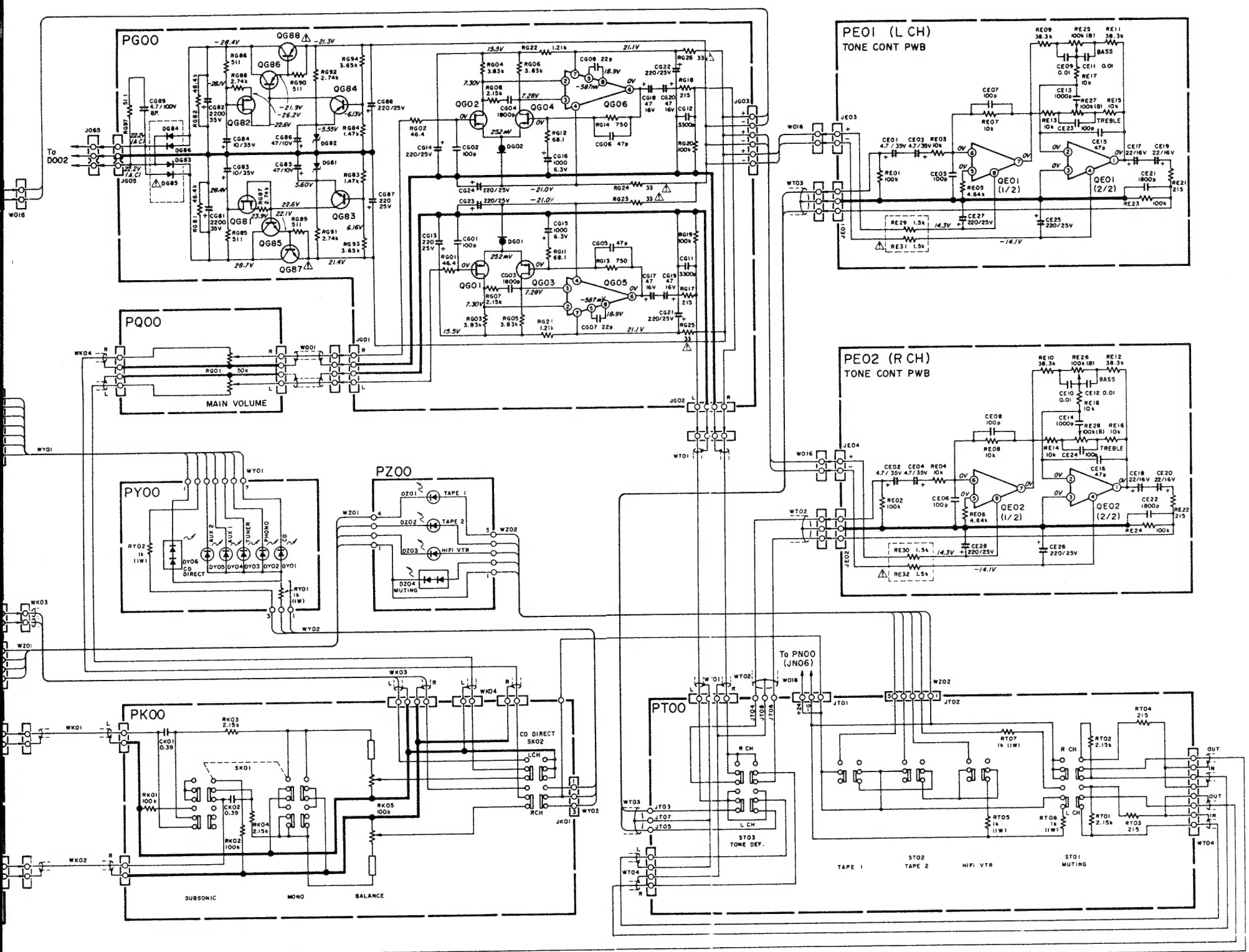
F001	FS10500800	FUSE
L001	TS40601020	POWER TRANSF.
S001	SP01010820	PUSH SWITCH POWER
S421	SR04030380	ROTARY SWITCH PHONO SELECT
S422	SR06050230	ROTARY SWITCH FUNCTION
S423	SR06040220	ROTARY SWITCH TAPE MONITOR
LN51	LY10480030	RELAY SOFT START
RE25 ~ RE28	RK01040280	VARIABLE 100KΩ (B)
RK05	RM01040890	VARIABLE 100KΩ BALANCE

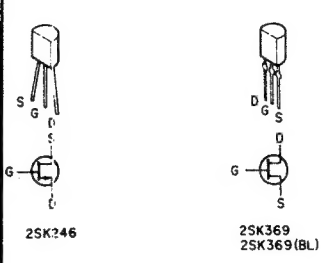
SK01	SP04020470	PUSH SWITCH SUBSONIC/MONO
SK02	SP04010500	PUSH SWITCH CD DIRECT
RN39 ~ RN42	RA01020460	TRIMMING 1KΩ (B)
RQ01	RM05031210	VARIABLE 50KΩ
LR01	LY20240150	RELAY SPEAKER
LR02	LY20240150	RELAY SPEAKER
SR51	SP02020860	PUSH SWITCH SPEAKER SELECT
ST01	SP04010480	PUSH SWITCH MUTING
ST02	SP02040330	PUSH SWITCH TAPE 1, 2 / VCR
ST03	SP04010480	PUSH SWITCH TONE DEFEAT
LV01	LY20240230	RELAY PRI-OUT

L401	TI11606010	INPUT TRANSF. MC-L CH
L402	TI11606010	INPUT TRANSF. MC-R CH
L403 ~ L406	LY20240230	RELAY
S401	SS04030230	SLIDE SWITCH PHONO S
S402	SS06060100	SLIDE SWITCH FUNCTIO
S403	SS06040050	SLIDE SWITCH TAPE MO
R622	RA02030260	TRIMMING 20KΩ (B)
R642	RA01030720	TRIMMING 10KΩ (B)
R643	RA01030720	TRIMMING 10KΩ (B)
R722	RA02030260	TRIMMING 20KΩ (B)
R742	RA01030720	TRIMMING 10KΩ (B)
R743	RA01030720	TRIMMING 10KΩ (B)

NOTE ON SAFETY :
Symbol ⚠ Fire or electrical shock hazard. Only original parts should be used to replace any part marked with symbol ⚠. Any other component substitution (other than original type), may increase risk of fire or electrical shock hazard.

Components and wiring are subject to change for modification witho





MC-L CH
MC-R CH

PHONO SELECT
FUNCTION
TAPE MONITOR
Ω (B)
Ω (B)
Ω (B)
Ω (B)
Ω (B)
Ω (B)

"SERVICE INFORMATION IS FOR USE BY QUALIFIED RERSONNEL ONLY – ANY MISADJUSTMENT OR MISALIGNMENT MAY BE TREATED AS A NON-WARRANTY REPAIR BY ANY MARANTZ SERVICE CENTRE – "

Kind of Common Parts

RESISTOR

R*** (1) GD05 - - - 140, Carbon film fixed resistor, ±5% 1/4W
R*** (2) GD05 - - - 160, Carbon film fixed resistor, ±5% 1/6W

C*** : **CERAMIC CAP.**
(1) DD1 - - - - 370, Ceramic condenser, disc type (titan condenser) Temp. coeff. P350 ~ N1000 50V

C*** : **CERAMIC CAP.**
(1) DK16 - - - 300, High dielectric constant ceramic condenser, disc type (titan variable) Temp. chara. 2B4 50V

C*** : **ELECTROLY CAP. (≠) / FILM CAP. (⇌)**
(1) EA - - - - - - 10, Electrolytic condenser, one-way lead type, tolerance ±20%
(2) DF15 - - - 350, Plastic film condenser, one-way type, Mylar, ±5% 50V

* In case of ordering the common parts, please establish the correct parts number of 10 figures by the procedure "ASSIGNMENT OF COMMON PARTS CODES"

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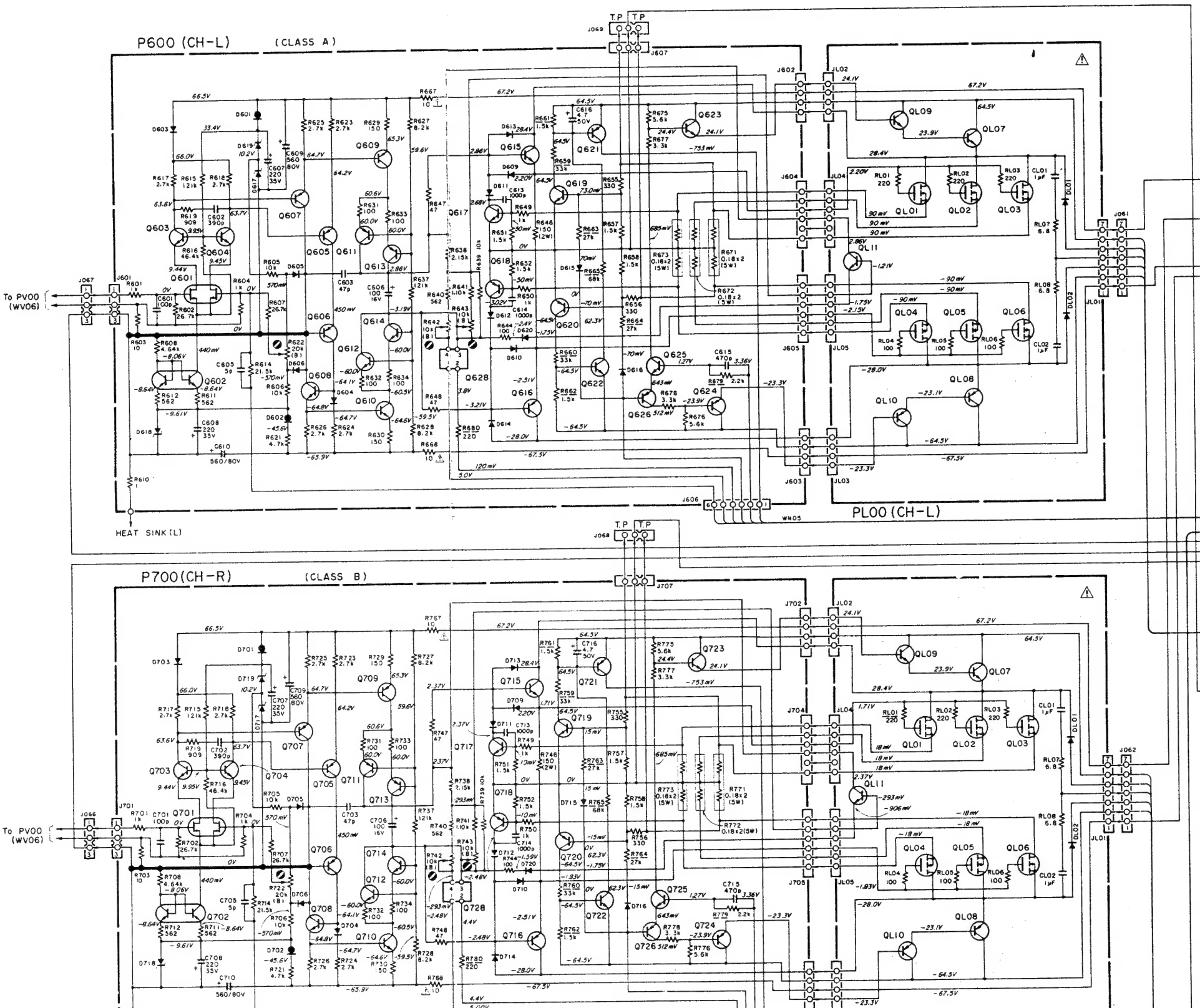
n without notice.

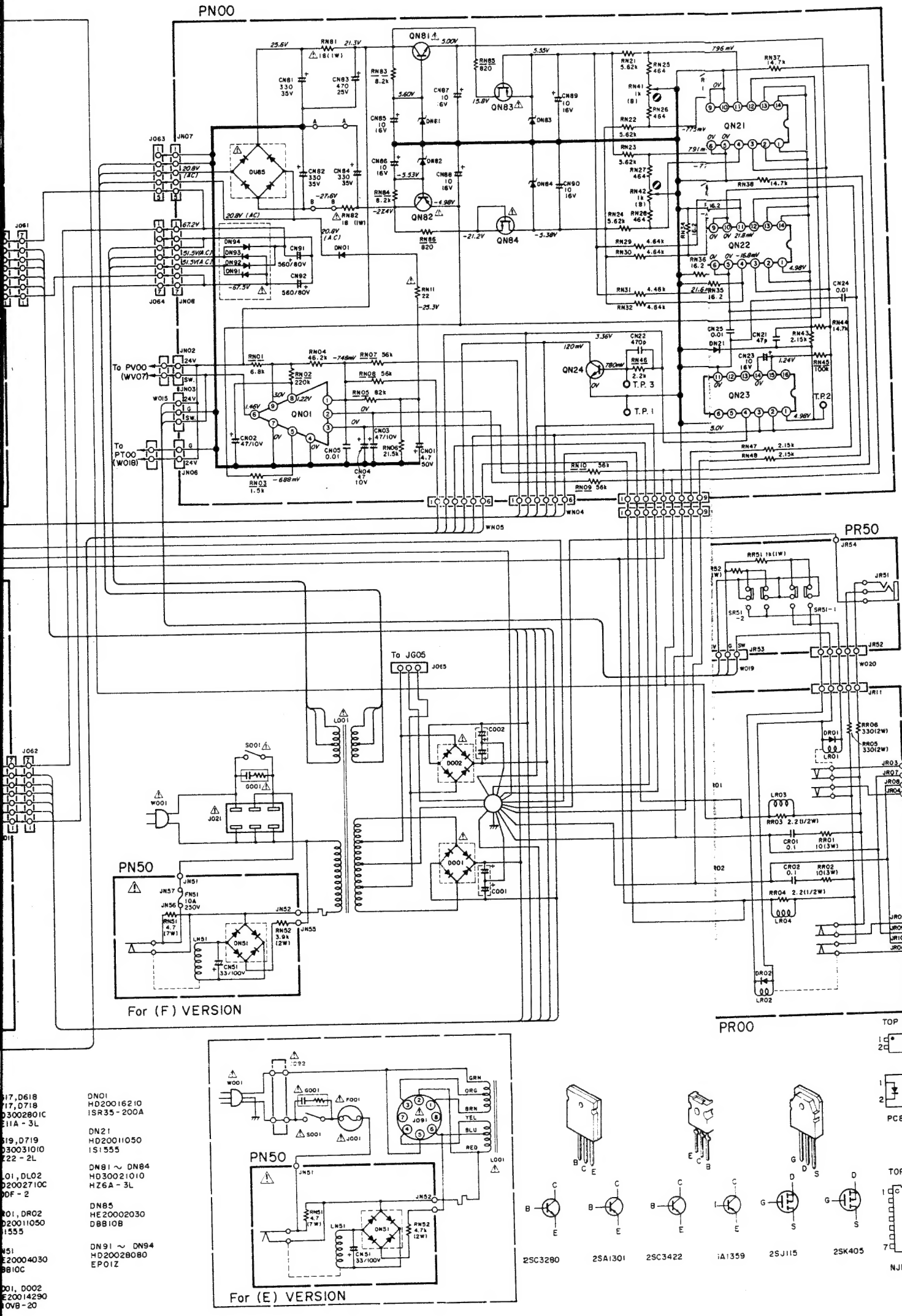


Q601, Q701 HF203892A0 2SK389(GR, BL)	Q605 ~ Q607 Q609, Q621, Q626 Q705 ~ Q707 Q709, Q721, Q726 HT10972A0 2SA970(GR, BL)	Q617, Q717, QN24 HT318152A0 2SC1815(O, Y)	Q622, Q722 HT329092A0 2SC2909(D, E)	QL01, QL03, QL05 HF20405100 2SK405(O)	QL09 HT329832A0 2SC2983(O, Y)	QN21, QN22 HC10009090 HJM2901	QN83, QN84 HF20246100 2SK2468L	D617, D618 D717, D718 HD3002801C HE11A - 3L	DN HD ISR
Q602, Q702 HT333812A0 2SC3381(GR, BL)	Q612, Q614, Q712, Q714 HT32705100 2SC2705(O)	Q618, Q718 HT110152A0 2SA1015(O, Y)	Q623, Q723 HT322401B0 2SC2240(BL)	QL02, QL04, QL06 HF10115100 2SJ115(O)	QL10 HT112252A0 2SA1225(O, Y)	QN23 HC712301A HD74LS123	D601, D602 D701, D702 HD60007100 10Y04.5C	D619, D719 HD3003101O HZ22 - 2L	DN HD HZ
Q603, Q604, Q608 Q610, Q625, Q703, Q704, Q704 Q710, Q725 HT322402A0 2SC2240(GR, BL)	Q615, Q715 HT326823A0 2SC2682(P, Q, R)	Q619, Q719 HT32909280 2SC2909(S, T)	Q624, Q724 HT10970180 2SA970(BL)	QL07 HT332802A0 2SC3280(R, O)	QL11 HT334191Y0 2SC3419(Y)	QN81 HT334222A0 2SC3422(O, Y)	D603 ~ D606 D609 ~ D612, D620 D703 ~ D706 D709 ~ D712, D720 HD20011050 1S1555	DL01, DL02 HD20027100 30DF - 2	DN HE D8
Q611, Q613 Q711, Q713 HT111451O0 2SA1145(O)	Q616, Q716 HT111423A0 2SA1142(P, Q, R)	Q620, Q720 HT1120728O 2SA1207(S, T)	Q628, Q728 HW10006320 PC-817	QL08 HT113012A0 2SA1301(R, O)	QN01 HC10042050 TA7317P	QN82 HT113592A0 2SA1359(O, Y)	D613 ~ D616 D713 ~ D716 HD20014010 1SS81	DR01, DR02 HD20011050 1S1555 DN51 HE20004030 D88I0C D001, D002 HE20014290 S10VB-20	DN HD EP

NOTE ON SAFETY :
Symbol ⚠ Fire or electrical shock hazard. Only original parts should be used to replace any part marked with symbol ⚠. Any other component substitution (other than original type), may increase risk of fire or electrical shock hazard.

M6167

Components and wiring are subject to change for modification without notice.



2SA970(GR, BL)
2SA1015(O, Y)
2SA1207(S, T)
2SA970(BL)
2SC1815(Y)
2SC2240(GR, BL)
2SC2909(S, T)
2SC2909(D, E)

2SK246(BL)

2SA1145(O)
2SC2705(O)

2SC2682(P, Q, R)
2SA1142(P, Q, R)

2SA1225(O, Y)
2SC2983(O, Y)

SIDE VIEW
2SC3381

SIDE VIEW
2SK389

TOP VIEW
HD74LS123

TOP VIEW
PC817

SIDE VIEW
TA7317S

TOP VIEW
NJM2901

2SC3280
2SA1301
2SC3422
iA1359
2SJ115
2SK405

"SERVICE INFORMATION IS FOR USE BY QUALIFIED RERSONNEL ONLY –
ANY MISADJUSTMENT OR MISALIGNMENT MAY BE TREATED AS A NON-WARRANTY
REPAIR BY ANY MARANTZ SERVICE CENTRE –"

Kind of Common Parts

RESISTOR

R*** (1) GD05 - - - 140, Carbon film fixed resistor, ±5% 1/4W
R*** (2) GD05 - - - 160, Carbon film fixed resistor, ±5% 1/6W

C*** : **CERAMIC CAP.**
(1) DD1 - - - - 370, Ceramic condenser, disc type (titan condenser) Temp. coeff. P350 ~ N1000 50V

C*** : **CERAMIC CAP.**
(1) DK16 - - - 300, High dielectric constant ceramic condenser, disc type (titan variable) Temp. chara. 2B4 50V

C*** : **ELECTROLY CAP. (⇌) / FILM CAP. (⇋)**
(1) EA - - - - - - 10, Electrolytic condenser, one-way lead type, tolerance ±20%
(2) DF15 - - - 350, Plastic film condenser, one-way type, Mylar, ±5% 50V

* In case of ordering the common parts, please establish the correct parts number of 10 figures by the procedure "ASSIGNMENT OF COMMON PARTS CODES"